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Tax Considerations Related to the Creation, Financing, Banking, Use and Disposition of ERCS in Controlled Trading Approaches to Air Pollution

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TAX CONSIDERATIONS RELATED TO THE CREATION, FINANCING, BANKING, USE AND DISPOSITION OF ERCS IN CONTROLLED TRADING APPROACHES TO AIR POLLUTION*

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Emissions trading, under the Clean Air Act, includes bubbles, netting, emission offsets, emission reduction banking, and is the subject of an EPA proposed Policy Statement (47 Fed. Reg. 15076, Apr. 7, 1982). These alternatives involve the creation of surplus reductions at certain stacks or vents and use of these reductions to meet requirements applicable to other emission sources. Emissions trades can provide more flexibility, and may therefore be used to reduce control costs, encourage faster compliance and free scarce capital for industrial revitalization.

This paper discusses tax considerations regarding the currency of emissions trading, the Emission Reduction Credit, or ERC. Major issues include: (1) tax benefits available to a firm creating an ERC, (2) financing issues, (3) tax attributes of an ERC, and (4) ERC sales and option transactions. Like most business and financial activity, ERC transactions turn substantially on tax issues.

The study includes issues raised by the Economic Recovery Tax Act of 1981.

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TAX CONSIDERATIONS RELATED TO THE CREATION, FINANCING, BANKING, USE AND DISPOSTION OF ERCS IN CONTROLLED TRADING APPROACHES TO AIR POLLUTION

I. Executive Summary

Scribner, Hall, Thornburg & Thompson was requested to provide EPA with an analysis of federal income tax consequences relating to the creation, sale, and use of emission reduction credits (ERCs) under existing law. During the course of the study, consideration was given to applicable provisions of the Internal Revenue Code (26 U.S.C.), Treasury Regulations (26 C.F.R.), legislative history, relevant case law, published revenue rulings and private written determinations of the Internal Revenue Service to ascertain the likely tax treatment of ERC transactions. Research emphasis was placed on transactions relating to the creation, use, and sale of comparable or analogous intangible property rights, as well as on transactions involving pollution control facilities.

The study examines each stage in typical ERC transactions and, for purposes of analysis, divides the discussion of the major tax issues into four parts; (1) tax benefits available to a firm creating an ERC (including issues relating to pollution control equipment), (2) financing issues, (3) tax attributes of an ERC, and (4) ERC sales and option transactions. After identifying the significant tax issues at each stage, the study concludes that in many instances the tax treatment will be governed by well-established principles of the tax law that generally apply to transactions involving pollution control facilities and intangible property rights. The application of these tax rules to specific ERC transactions, however, may differ according to the facts of each particular case (e.g., the characterization of the gain realized on ERC sales as capital gain may depend upon the status of the seller as an investor rather than a dealer). Other tax consequences of ERC transactions will remain uncertain until the IRS or the courts examine the issues and make their determinations. The most important unresolved issues include (1) whether large issue tax-exempt industrial development bond financing for "pollution control facilities" is available where the financed control equipment creates an ERC, and (2) whether a firm may obtain a tax benefit through amortization deductions for the cost of acquiring an ERC. The study concludes that there is a good chance that tax-exempt industrial development bond financing will be available, but it is doubtful that the IRS will permit ERCs to be amortized.

The study points out that significant tax benefits are available for a firm that acquires pollution control equipment (e.g., ten percent investment tax credit and five-year cost recovery deductions), and these benefits will not be adversely affected by the creation of an ERC. The conclusions of the study also suggest tax planning opportunities that can play an important role in the controlled ERC banking and trading process. For instance, the financing of control equipment used to create an ERC can take many forms (e.g., public financing through government subsidies or industrial development bonds; private financing through loans or leases). Under an equipment leasing arrangement, which is now more feasible under liberalized rules contained in the Economic Recovery Tax Act of 1981, a firm may obtain a tax deduction for its rental payments, whereas in a loan transaction the firm acquires ownership of the control equipment and may claim the investment tax credit and five-year accelerated cost recovery deductions. The relative impact of these tax benefits may determine whether an emission reduction is financed by equipment leasing or loans.

Tax considerations also may be important in shaping how an ERC is acquired or sold. For instance, a firm may decide to lease an ERC for a term of years to obtain the tax benefit of rental deductions in light of the study's conclusion that amortization deductions may not be available where an ERC is purchased. Similarly, to obtain tax-favored long-term capital gain treatment, which is available for assets held for over one year, a firm may decide to bank an ERC for the one year period before selling it or enter into a short-sale transaction which is closed after the one year period has expired. Further tax savings through deferral of income tax liability can be achieved if the negotiated ERC sales agreement is structured to qualify as an installment sale for tax purposes.

The study represents an analysis of current law and does not attempt to anticipate the potential effects of proposed legislation on future ERC transactions. While the study was ongoing, however, a bill (S.169) was introduced in the United States Senate which would broaden the categories of "pollution control facilities" that would qualify for tax-exempt industrial development bond financing, and permit a current deduction for the cost of control equipment installed at a new point source. Congress also is considering legislation that would provide for more restrictive use of small-issue (under $10 million) tax-exempt industrial development bond financing. The enactment of this legislation could have a significant impact on the economic desirability of future ERC transactions.

II. Introduction

Controlled trading of ERCs offers firms new opportunities to significantly reduce their costs of meeting air pollution control requirements. Under this program, firms now have the option of reducing their control costs by purchasing surplus emission reductions from other firms, by exceeding current control requirements at one point source in return for relaxing controls at another (i.e., use of the bubble), or by selling surplus emission reductions to other firms. With a controlled trading system, firms will not be locked into a rigid regulatory program requiring the installation of specific control equipment at each point source. Controlled trading permits each firm to develop a compliance strategy consistent with its own business and planning goals.

A key element of an effective controlled trading program is ERC banking. A banking system enables more cost-effective compliance with control requirements by allowing firms to receive and store credits for reducing their emissions beyond required levels of control. In areas with banking programs, a firm now has an incentive to initiate emission reductions beyond current requirements when it is economically feasible to do so. Credit for the surplus emission reductions can then be banked, providing cost-savings through future sale or use at another point source (e.g., in a bubble, as an offset or in netting to accommodate plant expansion), or through subsequent use at the original point source if SIP emission limits are later revised. Substantial indirect costs resulting from permit delays also may be avoided since the credit has been certified in advance of use.

In evaluating and structuring ERC transactions, firms will want to carefully evaluate the potential costs and savings, including the financial impact of taxes. For example, there can be a significant difference in the cost, and therefore desirability, of creating an ERC where tax-exempt industrial development bonds are used as a means of financing the installation of control equipment, as opposed to using debt-financing from private sources. Although a firm is entitled to a tax deduction for its interest payments in a private financing transaction, these interest deductions may not compensate for the burden of interest payments at high commercial rates. In comparison, industrial development bonds can be sold at lower interest rates (because interest income on such bonds is tax-exempt when received by bondholders), and the savings can be passed on to the firm which reduces emissions to create an ERC.

Through negotiation and careful tax planning, applicable tax benefits and burdens can be distributed among firms participating in an ERC transaction in the most desirable fashion. Where tax results may be in doubt, however, securing a private letter ruling from the IRS as to the tax consequences may be an essential consideration in structuring an ERC transaction because such a ruling permits the firm to rely on the IRS' conclusions. A specific example of a private letter ruling issued by the IRS relating to an offset transaction is discussed in Appendix B.

The major tax issues which firms will want to consider in evaluating ERC transactions include the following:

- Can tax-exempt industrial development bonds be used to create an ERC?
- Does pollution control equipment used to create an ERC qualify in full for the investment tax credit, five-year accelerated cost recovery, or 60-month rapid amortization?
- Can the costs of purchasing an ERC be amortized?
- Will proceeds from the sale of an ERC be taxed as long-term capital gain?
- Will a firm be taxed on government grants made to subsidize the cost of creating an ERC?

In addition to the discussion of tax issues relating to ERC transactions, this paper contains two appendices. Appendix A is a glossary of the basic tax terms and outlines their importance in ERC transactions. Appendix B examines the tax consequences in a major offset case which was proposed as a private transaction outside the context of a structured banking system. Although the structure of the transaction in this offset case is probably atypical, it is important because it is the first offset case in which the IRS has ruled on the tax consequences of any controlled trade.

Other than the offset case, there is no established precedent in the tax law specifically dealing with transactions involving ERCs. Consequently, the conclusions reached in this paper are based largely on precedents dealing with analogous intangible property rights. The applicability of these conclusions may vary in individual ERC transactions particularly where state banking and bubble rules differ.

III. Significant Tax Issues

The discussion of major tax issues is presented in a question and answer format and is organized into four sections, each relating to the various stages in the banking and trading process. The four sections are:

- Tax Benefits Available to a Firm Creating an ERC - availability of: depreciation, rapid amortization, or accelerated cost recovery deductions for pollution control equipment; the investment or energy tax credit for pollution control equipment; and loss deductions for replaced equipment.
- Financing Issues - use of tax-exempt industrial development bonds, private bond issues or loans, leasing of control equipment, and government subsidies.
- Tax Attributes of an ERC - treatment of administrative costs in qualifying and certifying an ERC and availability of amortization deduction for ERCs.
- ERC Transfers - tax consequences of ERC sales and option transactions.

A. Tax Benefits Available to a Firm Creating an ERC

A company's decision to acquire new control equipment to create an ERC has many potential tax ramifications:

- The company may claim an investment tax credit for the cost of acquiring the new equipment when it is placed in service;
- The company also may claim accelerated cost recovery deductions over a five-year period on the new equipment if it is placed in service after December 31, 1980;
- If the new equipment qualifies as a pollution control facility, the company may claim 60-month rapid amortization on it, in lieu of the accelerated cost recovery deductions;
- The company may deduct the expenses of operating and maintaining the new equipment; and
- If existing control equipment is abandoned or sold for its scrap value, the company may be entitled to a loss deduction for its unrecovered costs connected with the old equipment.

This section discusses the availability of these tax benefits and how creation of an ERC may affect them.

1. Will the Investment or Energy Tax Credit, Depreciation, Accelerated Cost Recovery, or Elective Rapid Amortization for the Cost of a Pollution Control Facility Be Available If an ERC Is Created?

A firm generally is entitled to an investment tax credit and depreciation or five-year cost recovery deductions for the costs incurred in acquiring and installing pollution abatement equipment.

If the equipment is certified as a pollution control facility and is used in conjunction with a plant in operation before 1976, the firm may elect special rapid amortization of the costs over a 60-month period in lieu of the otherwise allowable depreciation or cost recovery deductions. Such rapid amortization, however, may not be as beneficial as five-year cost recovery deductions.

The IRS may take the position that 60-month rapid amortization is not available to the extent that a firm is able to recoup its cost of installing pollution control equipment by the creation of an ERC. Such a position, however, is not likely to be sustained by the courts.

Pollution control equipment is eligible for the energy tax credit only where it is used in connection with certain new alternative energy property. Control requirements on newly-acquired alternative energy property are usually sufficiently stringent to preclude certification of an excess emission reduction. Consequently, the energy tax credit typically will not be available in ERC transactions.

a. Investment Tax Credit, Depreciation and Accelerated Cost Recovery Deductions

When a firm incurs capital expenditures to acquire an asset that has a useful life of more than one year in its business, the firm cannot claim a current deduction for such expenditures. Instead, the firm must capitalize these expenditures for tax purposes, as part of the asset's tax "basis." If this asset has an ascertainable limited useful life, then the firm can claim depreciation or accelerated cost recovery deductions for such basis. Sections 167 and 168.

For tangible business property, such as pollution control equipment, which was placed in service before January 1, 1981, depreciation deductions generally were determined using the

Asset Depreciation Range (ADR) system. Under the ADR system, the Treasury Department specifies a midpoint life for equipment used in most industries on the basis of industry experience. Firms could elect lives 20 percent longer or shorter than the midpoint life and depreciate the equipment over that period. For assets not eligible for ADR or for firms which did not elect ADR, useful lives for assets were determined by the particular facts. To stimulate capital formation, Congress provided in Section 167(b) for the use of several accelerated depreciation methods for tangible business property. Accelerated depreciation has the effect of permitting relatively higher depreciation deductions in the first years that the equipment is used in the business. The most common accelerated depreciation methods used are the double declining balance and the sum-of-the-years-digits methods.

For tangible business property placed in service after December 31, 1980, Section 168 (newly-enacted as Section 201 of the Economic Recovery Tax Act of 1981), replaces the ADR system with the Accelerated Cost Recovery System (ACRS). Under ACRS, the cost of an asset is recovered over a predetermined period that is generally shorter than the useful life of the asset. The cost recovery period is three years for tangible personal property with an ADR midpoint life of four years or less; ten or fifteen years for public utility property with an ADR midpoint life greater than 18 years; or five years for other equipment. Under a special flexibility provision, firms also may elect to use one of two longer recovery periods using straight-line cost recovery.

The investment tax credit is an additional incentive for capital formation. The maximum credit is equal to ten percent of the cost of depreciable tangible business property, and is allowed in the year the property is placed in service. For 1981, the total investment tax credit on all qualifying property purchased in the taxable year can equal the first $25,000 of tax liability, plus 80 percent of the excess over $25,000. For property placed in service before January 1, 1981, the credit is equal to ten percent of the firm's qualified investment in the property but only if the asset has a useful life of over seven years. A smaller credit is available for such property with a shorter useful life. For equipment placed in service after December 31, 1980, the full ten percent investment credit is available under Section 46(c)(7) for all property for which the five-year, ten-year, or fifteen-year ACRS system is used.

In general, pollution control equipment placed in service after December 31, 1980, will be eligible for five-year cost recovery under the ACRS system, as well as the full ten percent investment tax credit. In some circumstances accelerated cost recovery deductions together with the investment tax credit will yield a greater tax benefit then would be available if the cost of the equipment could be currently deducted. The tax benefit of five-year cost recovery also may be greater than under special 60-month amortization (discussed below), thus, reducing the importance of the 60-month amortization provisions. This is because cost recovery deductions during the five-year period are based on accelerated depreciation methods, while 60-month amortization is straight-line. However, in cases where pollution control equipment constitutes "public utility property," five-year ACRS cost recovery may not be available, and 60-month amortization may still be the best option.

b. 60-Month Rapid Amortization for Pollution Control Equipment

i. Qualification for Rapid Amortization

To stimulate the acquisition of pollution control equipment, Congress has enacted special rules providing favorable rapid amortization deductions in lieu of other depreciation or accelerated cost recovery deductions. Under Section 169, a firm may elect to amortize a portion of the cost of qualifying control equipment over a 60-month period, beginning with the month following completion or acquisition of the facility or with the first month of the following taxable year. However, only tangible, depreciable business property that is certified as a "pollution control facility" by state and federal authorities and is used in connection with a plant or other property in operation before January 1, 1976, qualifies for rapid amortization. The equipment must be used to abate or control atmospheric pollution or contamination by removing, altering, disposing, storing, or preventing the creation or emission of pollutants, contaminants, wastes or heat. Section 169(d). The provision allowing for the prevention of pollution was specifically added by Congress to broaden the types of equipment that qualify for rapid amortization to include process technology. If the control equipment has a useful life in excess of 15 years, the cost of the equipment that qualifies for 60-month amortization is reduced and the remaining portion is subject to the regular depreciation or cost recovery rules. Section 169(f).

If acquisition of control equipment is financed by tax-exempt industrial development bonds, one detriment to electing rapid amortization is that the investment tax credit otherwise available for such equipment will be reduced by 50 percent. Section 46(c)(5)(B). There is no such limitation for pollution control equipment subject to the five-year ACRS cost recovery system. The tax benefit available for each method, and the fact that 60-month rapid amortization is in lieu of other depreciation and five-year ACRS cost recovery deductions, make it important for a firm to ascertain how these potentially favorable tax provisions apply to its investment creating the ERC and how they can provide the greatest overall tax benefits.

ii. Effect of Creating an ERC

The IRS could point to either of two limitations in Section 169, in an effort to disqualify for 60-month rapid amortization any pollution control equipment that creates a "profitable" ERC.

First, Section 169(e) provides that the federal certifying authority shall not certify any property "to the extent that it appears that by reason of profits derived through the recovery of wastes or otherwise in the operation of such property, its costs will be recovered over its actual useful life." For this provision to apply where a profitable ERC is created, the IRS would have to contend that the value of an ERC constitutes profits "otherwise" derived through operation of the facility. However, such a position is not likely to be adopted because there is no suggestion in EPA's Pollution Control Facilities-Guidelines for Certification, 36 Fed. Reg. 19132-19134 (Sept. 28, 1971), that the phrase "or otherwise" will be broadly construed to encompass the value of an ERC. See, Treas. Reg. §1.169-2(d) (the authority for determining whether profits will be "otherwise" derived from a facility is vested in the EPA).

Secondly, Section 169(d)(1)(C) disqualifies any pollution control facility from certification if it significantly increases the output or capacity, extends the useful life, or reduces the total operating costs of the plant or other property with which such facility is used, or if such facility alters the nature of the manufacturing or production process or facility. For purposes of this provision, "significant" means a change of more than five percent. In determining how significant the effect of a pollution control facility is upon output, capacity, costs or useful life of property, the relevant area for examination is the operating unit most directly associated with the pollution control facility. See Summary of the Tax Reform Act of 1976, prepared by Staff of the Joint Committee on Taxation (Oct. 4, 1976).

The purpose of this restriction is to limit rapid amortization to the economic detriment suffered by the firm in installing the pollution control equipment. Based on this purpose, the IRS might argue that rapid amortization is not available if an ERC is created and sold at a profit, because the pollution control equipment has the effect of reducing total costs of the firm. However, such an argument is not likely to be made, because the profit realized on a one-time sale of an ERC does not appear to be the type of reduction in "operating" costs contemplated by Section 169(d)(1)(C). Regardless of the receipt of ERC sale proceeds, the day-to-day operating costs of the firm will remain the same.

c. Energy Tax Credit for Pollution Control Equipment

As an incentive to promote the production of alternative energy sources, an energy tax credit in addition to the investment tax credit is available for investments in certain qualified property. The credit is equal to ten percent of the qualified investment in "alternative energy property" and can offset a firm's entire tax liability. If the alternative energy property is financed by tax-exempt industrial development bonds, the allowable credit is reduced by a percentage amount equal to the percentage of the property financed by the tax-exempt bonds. Section 48(l)(11).

Under Section 48(l)(3)(A), pollution control equipment can qualify as alternative energy property if it is required by federal, state, or local regulations to be installed on or in connection with:

- A boiler, the primary fuel for which is not oil or natural gas;
- A burner for a combustor if the primary fuel is not oil or natural gas;
- Equipment for converting a material other than oil or natural gas into a synthetic fuel;
- Equipment designed to modify existing equipment so that the primary fuel is not oil or natural gas; and

- Equipment used to convert coal into a substitute energy substance.

With certain limited exceptions, the energy tax credit is available only for equipment installed at a new point source (i.e., qualifying energy property generally must be new depreciable business property acquired, constructed, reconstructed, or erected after September 30, 1978 and before 1983). Since excess emission reductions usually cannot be created from the installation of pollution control equipment at new point sources, the energy tax credit probably will not be a major consideration in a typical ERC transaction.*

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*In those unusual situations where an ERC is generated upon the acquisition of qualified alternative energy property and related pollution control equipment, it is unclear whether the creation of the ERC would preclude or limit the availability of the energy tax credit. First, to qualify for the energy tax credit, pollution control equipment must be "required" by federal, state, or local regulations. The IRS could argue that to the extent the equipment exceeds regulatory standards and an ERC is thereby created, the equipment is not "required." Secondly, applicable Treasury Regulations (Treas. Reg. §1.48-9(c)(8)) provide that eligible pollution control equipment is limited to the types of control equipment that qualify for large issue, tax-exempt industrial development bond financing. As discussed in detail later in this paper, only a narrow class of control equipment potentially qualifies as a pollution control facility for tax-exempt financing. Moreover, under IRS regulations if control of pollution is not the only significant purpose of the equipment only the "incremental cost" of the equipment qualifies for the credit. Thus, the IRS could seek to deny qualification of at least a portion of the cost of control equipment on the ground that the creation of an ERC is considered a significant non-pollution control purpose.

2. Will a Loss Deduction be Available When a Firm Creates an ERC through Source Shut-Down, Curtailment in Operations, or Retirement of Equipment?

A company may be entitled to a deduction for a loss incurred on a permanent shut-down, or retirement of its plant or equipment, if such plant or equipment is abandoned, demolished, sold or otherwise disposed of permanently. The loss deduction generally is measured by (1) the company's basis remaining in the plant or equipment less (2) any salvage value or compensation for the loss received by the company.

A firm should not be denied such a loss deduction simply because the shut-down or retirement results in the creation of a valuable ERC. An ERC created in this manner should not be treated for tax purposes as a substitute for sale proceeds or as compensation for the firm's loss.

a. Availability of Loss Deduction on Abandonment of Plant or Retirement of Equipment

Section 165 allows a deduction for any loss sustained during the taxable year not compensated for by insurance or otherwise. To be deductible a loss must be bona fide, evidenced by a closed and completed transaction, fixed by identifiable events, and actually sustained during the taxable year. Treas. Reg. §1.165-1.

Where, because of changes in business conditions, a firm decides to demolish its plant or retire its machinery and install new equipment, a loss deduction under Section 165 generally is available. Treas. Reg. §1.165-2; Industrial Cotton Mills Co. v. Commissioner, 43 B.T.A. 107 (1940), acq., 1941-1 C.B. 6. To obtain such a deduction there is no requirement that the firm entirely terminate business operations or refrain from replacing the abandoned property. Parmelee Transportation Co. v. United States, 351 F.2d 619 (Ct. Cl. 1965). A loss deduction is not available, however, in most cases where the plant or equipment is acquired with the intention of demolishing or retiring it, e.g., to replace it. Treas. Reg. §1.165-3(a)(2); Wood City Telephone Co. v. Commissioner, 51 T.C. 72 (1968).

The timing and amount of the loss deduction depend upon whether the loss occurs as a result of a sale, abandonment, or retirement of the plant or equipment. See Treas. Reg.

§1.167(a)-8.* Regardless of the form, however, the loss will generally be an ordinary loss,** and not a capital loss, because depreciable business property does not qualify as a capital asset. Sections 1221, 1231***. In a sale transaction the amount of the loss deduction is measured by the difference between the sales proceeds (the scrap value) and the adjusted basis in the plant or equipment sold. Where the plant or equipment is physically abandoned and the firm can show an intention to irrevocably discard the asset so that it will never again be used or sold, the amount of the loss deduction is equal to the adjusted basis in the asset. Treas. Reg. §1.167(a)-8(a)(4). However, it may be difficult to show that a plant building, or any other asset of general utility, will never again be used by the firm, if this asset is not in fact sold, destroyed or otherwise disposed of permanently.

Depending on whether the firm uses separate or multiple asset accounts for depreciation or cost recovery of a particular asset, different rules will apply when the asset is permanently retired from use without being sold, disposed of, or permanently abandoned. For property included in separate asset accounts, the loss on a permanent retirement is measured by the excess of the retired asset's adjusted basis over the greater of the estimated salvage value or its fair market value at retirement. Treas. Reg. §1.167(a)-8(a)(3). Essentially, therefore, the loss equals the firm's cost to obtain the asset, plus the cost of capital improvements, less depreciation or cost recovery deductions, less any remaining value.

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*The rules relating to business losses are found in regulations relating to depreciation. These regulations may be amended to reflect the establishment of the ACRS system with the enactment of Economic Recovery Tax Act of 1981.

**An "ordinary" loss usually is more favorable because it offsets ordinary income dollar-for-dollar, while a capital loss may offset capital gain which would otherwise be taxed at a lower rate.

***A depreciable business asset held for more than one year constitutes a "Section 1231 asset." Gains and losses from all such assets during a taxable year are netted against one another. Any net gain is treated as a long-term capital gain, while net loss is treated as an ordinary loss. See Section 1231(a).

Where multiple asset accounts are maintained, the accounting treatment depends on whether a "normal" or "abnormal" retirement has occurred. If it is abnormal, the same rules applicable to separate asset account property apply. If normal retirement is involved and an average useful life is used in the multiple asset account, the depreciation reserve will continue to reflect depreciation of the retired asset over its useful life. Therefore, the loss is charged to the depreciation reserve and is not deductible. Treas. Reg. §1.167(a)-8(e)(1).

b. ERC Not Treated as Compensation for Loss

It is possible that the IRS could attempt to disallow a loss deduction for a sale, abandonment or retirement of plant or equipment where an ERC is created on the basis that the ERC is the equivalent of compensation or payment for the loss. Such a position should not be sustained, however.

In other situations where the taxpayer has received government compensation for a loss, such as disaster relief funds, the IRS has sought to disallow or reduce the amount of the deduction for such loss. Nevertheless, such a disallowance generally is proposed only where the IRS concludes that the compensatory purpose of the government program is clear and the payment is made for the purpose of replacing the property lost. See, e.g., Rev. Rul. 71-161, 1971-1 C.B. 75 (reimbursement for the cost of debris removal under the Disaster Relief Acts of 1969 and 1970); Rev. Rul. 76-144, 1976-1 C.B. 17 (reimbursement under the Disaster Relief Act of 1974); Rev. Rul. 78-388, 1978-2 C.B. 110 (reimbursement for abandonment losses under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970). The courts also look to whether the benefit is directly compensatory, is in the nature of insurance or is intended to replace the loss. Shanahan v. Commissioner, 63 T.C. 21 (1974). As stated by the Ninth Circuit, "A loss deduction cannot be disallowed simply because the loss may not be wholly disadvantageous to the taxpayer." Freitas Dairy, Inc. v. United States, 582 F.2d 500 (9th Cir. 1978). Or, in the words of the Court of Claims: "The statute does not bar a deduction for a loss actually incurred merely because the taxpayer is able to effect an offsetting gain on a different although contemporaneous transaction." Forward Communication Corp. v. United States, 608 F.d 485 (Ct. Cl. 1979).

Situations in which a government program has been determined to have a compensatory effect are distinguishable from the creation of an ERC. The purpose of the controlled trading program is to achieve an economically efficient method of complying with the requirements of the Clean Air Act; certification of an ERC is not intended as compensation for the loss which may be incurred in eliminating or reducing emissions. Accordingly, a loss deduction sustained in selling or abandoning an existing plant, process, or equipment should be available even though a firm may obtain a valuable marketable commodity in the form of an ERC.*

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* Even if the creation of an ERC is treated as compensation for an abandonment or retirement loss, the amount of such compensation should not be the full value of the ERC. Instead, such value should be reduced by the administrative costs incurred in certifying and qualifying the ERC. Moreover, to the extent that the value of the ERC reduces the loss deduction for the abandoned plant or equipment, the basis of the ERC should be correspondingly increased (up to the full value of the ERC).

3. What Will be the Tax Basis of Pollution Control Equipment Acquired to Create an ERC?

The tax basis assigned to pollution control equipment purchased to reduce emissions will be the cost incurred by the firm in acquiring, constructing, or installing it. The creation of an ERC and transaction costs directly associated with the certification of the ERC should not affect the tax basis of the equipment. No portion of the cost of the equipment should be subtracted from its basis and allocated to the ERC.

The tax basis of the equipment is important in determining the tax benefits to be derived from the acquisition. Basis will determine the amount of the firm's:

- **investment or energy tax credit;**
- **depreciation or accelerated cost recovery deductions;**
- **elective rapid amortization deduction, if the equipment qualifies as a pollution control facility; and**
- **taxable gain or loss on the subsequent sale or abandonment of the equipment.**

a. Importance of Basis Provisions

The tax basis of equipment is the foundation for a tax recovery of the cost of the equipment. The tax basis of the equipment determines the amount of the investment or energy tax credit that may be claimed as well as depreciation or accelerated cost recovery deductions available when the equipment is placed in service. If the equipment qualifies as a pollution control facility, its basis determines the amount of any rapid amortization that may be elected under Section 169.

The basis concept also provides a method for determining the amount of gain or loss realized on the sale or other disposition of property. Upon disposition, the basis, as adjusted for capital improvements, depreciation, amortization, or accelerated cost recovery, will reflect the amount realized which may be recouped by the taxpayer tax-free. Any excess will be includible in income as gain. If the total amount realized is less than the adjusted basis, the taxpayer will have a reportable loss.

Under Section 1012 the original basis of newly-acquired property is its cost. This cost includes the purchase price and any incidental costs of acquiring or installing it. Thereafter, any expenditures that have the effect of extending the useful life of the property will be added to its basis (i.e. capital improvements, but not routine maintenance or operating expenses). Any depreciation, amortization, or accelerated cost recovery deductions will reduce the property's basis.

b. Tax Basis of Abatement Equipment Not Affected by the Creation of an ERC

Creation of an ERC should not affect the adjusted basis of newly-acquired pollution abatement equipment. Nevertheless, the IRS could propose to allocate a portion of the cost of such equipment to the ERC for basis purposes.

Where several assets are acquired at the same time for a lump sum pruchase price, the total purchase price must be allocated to determine the cost basis of each individual asset. Such an allocation usually is based on the relative fair market values of the assets acquired. Therefore, any treatment of the creation of an ERC with a relatively contemporaneous purchase of new abatement equipment as a single acquisition of mixed assets could have significant tax effects.

Any allocation of equipment costs to the ERC in determining the tax basis for each would--

(1) reduce the amount of investment or energy tax credit, depreciation, rapid amortization, or accelerated cost recovery otherwise allowable for the equipment;

(2) reduce the taxable loss (or increase the taxable gain) realized on a subsequent sale or disposition of the equipment;

(3) increase any amortization deductions otherwise available for the ERC once it is banked or used; and

(4) reduce the gain (or increase the loss) realized on a subsequent sale or disposition of the ERC.

Firms that create ERCs will have differing interests in the resolution of such an allocation issue. A firm intending to sell an ERC immediately after its creation frequently will want to allocate as much basis to the ERC as possible, to reduce any gain realized on the sale. A firm intending to use an ERC in its own business may not want any of the costs of the control equipment allocated to the ERC, in order to maximize the depreciation, accelerated cost recovery, or rapid amortization deductions, and investment or energy tax credit available for the equipment.

Although unusual circumstances may warrant an allocation of costs between the equipment and the ERC,* generally the IRS should not allow or require such an allocation. In a typical allocation case the purchaser buys a combination of assets from the same seller for a lump sum, e.g., at a discount. The purpose of the allocation is to determine how much of the lump sum should be considered to have been paid for each individual asset. The purchase of control equipment that permits the creation of an ERC is not analogous because the ERC is not acquired from the seller of the equipment. Rather, the ERC is a valuable right which is created by the independent actions of the buyer. Under government guidelines implementing the Clean Air Act, an existing source already possesses a right under its permit to emit a specified volume of pollutants into the air. The use of new abatement equipment and the certification of the resulting emission reductions simply allow a portion of that right to be severed, and in some cases to be transferred to another party. However, that severable right is not acquired from the seller of the pollution abatement equipment, and therefore should not be combined with such equipment for basis allocation purposes.

Moreover, there would be serious administrative problems for the IRS to resolve if the creation of an ERC affected the basis of pollution abatement equipment. At the end of the first taxable year for which such basis had to be determined (e.g., for investment or energy tax credit and depreciation or cost recovery purposes) it may be uncertain whether use of the new equipment will lead to the certification of an ERC and, if so, what the value of the ERC will be. Consequently, the better conclusion is that the ERC is a separate asset with its own tax basis and other attributes, and that the equipment's basis should not be diminished by the contemporaneous creation of an ERC.

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*This would occur when a firm buys all the assets of an ongoing business and one of the assets acquired is an ERC. In such a case, an allocation of a portion of the lump sum purchase price to the ERC for basis purposes would be required.

B. Financing Issues

Emission reductions can be financed through several outside sources:

- use of tax-exempt industrial development bonds;
- payment by unrelated new sources seeking offsets (See Appendix B);
- payment by unrelated sources for use in a bubble;
- loans or private bond issues;
- equipment leasing; or
- government grants or subsidies.

Public financing through industrial development bonds is an attractive alternative, but is available in limited situations. One important tax issue is whether the creation of a valuable ERC precludes or restricts the use of such bonds. A large bond issue also may produce adverse collateral tax consequences, such as the loss of a full ten percent investment tax credit if 60-month rapid amortization for pollution control equipment acquired with the bond proceeds is elected.

Another source of public financing is a government grant or subsidy. A government agency could seek to reduce emissions in its area by subsidizing a private firm's cost of control. The principal issue here is whether the recipient must include the subsidy payments in income for tax purposes.

Private funding alternatives include term loans, project loans, private bond issues or equipment leasing. The primary tax consideration in a borrowing or leasing arrangement is the availability of a deduction for interest or rent payments on the loan, bonds, or lease.

4. What are the Tax Consequences Where Pollution Control Equipment is Acquired Using Borrowed Funds or Funds Secured Through a Bond Issue?

In a loan or bond transaction, the borrower is entitled to a deduction for payment of interest but not principal.

One means of financing the creation of an ERC is to take out a loan or issue bonds, and use the proceeds to purchase the pollution control equipment. Under Section 163 the borrower, or issuer of bonds, is entitled to a deduction for interest but not for principal payments. A significant tax benefit from a loan transaction is that it creates "leverage" for the borrower. For a relatively small initial capital investment, the firm can obtain disproportionately large tax benefits (e.g., five-year cost recovery and investment tax credit) measured by the full cost of the equipment.

When tax-exempt industrial development bonds are issued, the state or local government generally will make the proceeds of the bond sale available to the firm as a low interest loan. The firm still gets a deduction for the interest it pays on the loan, but the recipient can exclude such interest payments from income. This enables the lender to require lower interest payments on such a loan which makes this form of financing more attractive.

5. Can Tax-Exempt Industrial Development Bonds be Used to Finance the Installation of Pollution Control Facilities to Create an ERC?

The three most common methods of tax-exempt industrial development bond financing of pollution control equipment are:

(1) a small bond issue of $1 million or less;

(2) a small bond issue of $10 million or less where capital expenditures made in the locality are less than $10 million; or

(3) a large bond issue of unlimited amount for the acquisition of a qualified "air pollution control facility."

To qualify for large bond issues, at least 90 percent of the bond proceeds must be used to acquire a qualified "air pollution control facility". Although end-of-pipe controls generally will qualify, restrictions in regulations proposed by the Treasury Department may effectively preclude this type of financing for reductions that are the result of process changes. Moreover, the IRS could adopt the position that, to the extent the firm is able to recover all or part of its investment through the sale of an ERC, this portion of the investment may not be included as part of a qualifying facility.

a. Availability of Industrial Development Bond Financing

Under Section 103(b) tax-exempt industrial development bonds may be used as a financing tool if substantially all (90 percent) of the proceeds are to be used for certain qualified purposes. The three most common methods of qualifying the acquisition of pollution abatement equipment for tax-exempt industrial development bond financing are:

(1) a small issue of $1 million or less;

(2) a small issue of $10 million or less where "capital expenditures" made in the locality are less than $10 million; or

(3) issues of unlimited amount for the acquisition of a qualified "air pollution control facility."

b. Large Bond Issues

There is no limit on the face amount of the bond issue if substantially all of the proceeds are used to provide qualified air pollution control facilities. An "air pollution control facility" is defined as depreciable business property used to abate or control air pollution or contamination by removing, altering, disposing, or storing pollutants, contaminates, wastes, or heat. It can be designed to exceed applicable federal, state, and local requirements for the control of atmospheric pollutants or contaminants (e.g., it can create an ERC), but equipment built in anticipation of capacity expansion may not qualify. See Treas. Reg. §1.103-8(g)(2). "Substantially all" of the proceeds of the issue will be considered devoted to the pollution control facility if 90 percent or more of the proceeds are used to provide the exempt facility. Treas. Reg. §1.103-8(a)(1)(i).

Under regulations proposed by the Treasury Department that have been outstanding since August 20, 1975, the use of industrial development bonds to finance pollution control equipment would be severely curtailed.* Proposed Treas. Reg. §1.103-8(g)(2)(ii) provides that a qualifying facility must be a discrete unit of property which abates or controls certain pollutants and cannot be further reduced in size without losing its ability to do so. "Pollutants" for this purpose do not include any material or heat unless such material or heat is in a state or form such that its discharge or release would result in atmospheric pollution or contamination.

These proposed restrictions effectively preclude tax exempt industrial development bond financing for:

- o equipment that treats or processes material to prevent the discharge or release of pollutants when such material is subsequently used;
- o equipment that prevents the creation of pollutants (e.g., coal washing facilities), rather than equipment that operates at the end-of-the-pipe;
- o equipment that processes or manufactures materials or heat that are no longer pollutants;

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*While the regulations proposed in 1975 have not been finalized, they represent the IRS' current policy in issuing rulings.

- equipment that disperses pollutants, rather than abates them;
- equipment that prevents the release of pollutants which would cause an immediate risk of substantial damage or injury to property, employees or other persons;
- equipment that is designed to prevent the release of pollutants in a major accident;
- equipment used to control materials or heat that traditionally have been controlled because their release would constitute a public nuisance; and
- equipment that has been used as a customary practice in the industry, and is not required for reasons of compliance with pollution control requirements.

It should be noted that the definition of a "pollution control facility" that is eligible for the 60-month rapid amortization election is broader than the definition of a facility that is eligible for tax-exempt industrial bond financing. A facility that prevents the creation or emission of pollutants, but does not take effect at the end of the production process, qualifies only for rapid amortization, not for tax-exempt financing.

c. Potential Conflict with IRS in Large Issue Financing

Even if none of the restrictions listed above apply, the IRS could adopt the position that to the extent that a firm is able to recover its investment through the sale of an ERC, this portion of the investment may not be counted as part of the cost of a qualifying facility for large issue financing. The IRS position is that the qualifying cost of a pollution control facility should be reduced to the extent of any "economic benefit" that will be derived from the installation and operation of the facility. This position is based on the theory that large issue tax-exempt bonds should finance only capital expenditures that cannot be recovered from the facility. The regulations issued in 1972 implement this position by providing that the full cost of the facility can only be financed with tax-exempt bonds if the expenditures for the property would not be made "but for" the purpose of controlling pollution, and if the expenditures have no significant purpose other than controlling pollution. Treas. Reg. §1.103-8(g)(2)(iii). If the facility is constructed for a dual purpose, the regulations provide that only the "incremental cost" of fulfilling the pollution control purpose (i.e., the excess of the total cost of the facility over the cost expended for a purpose other than the control of pollution) qualifies. Treas. Reg. §1.103-8(g)(2)(iv).*

Therefore, the utility of large bond issues in financing the cost of pollution control facilities can be severely restricted if an ERC is considered by the IRS to constitute an "economic benefit" attributable to a "function" of the facility. In such event, the value of the ERC would be subtracted from the cost of the facility to arrive at the maximum amount that could qualify as an expenditure in furtherance of pollution control. As the economic benefit of the ERC increases, the amount available for tax-exempt financing would decrease.

The term "economic benefit" for these purposes is defined in Proposed Treas. Reg. §1.103-8(g)(3)(i) to include:

(1) gross income or cost savings resulting from any increase in production or capacity;

(2) production efficiencies;

(3) the production of a by-product;

(4) the extension of the useful life of nonpollution control property;

(5) any other identifiable cost savings, such as savings resulting from the use, reuse, or recycling of the items covered.

The creation of an ERC could be viewed by the IRS as an economic benefit equivalent to the production of a by-product or an identifiable cost savings. Consistent with the theory of the proposed regulations, the IRS could argue that tax-exempt industrial development bonds should not be used to the extent the firm is able to recoup its investment by marketing the ERC.

On the other hand, there is a good chance that the IRS will conclude that the creation of an ERC is not the type of economic benefit referred to in the proposed regulations. The cost savings and by-products contemplated are apparently intended to be the type that are derived from the operation or

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*The proposed regulations issued in 1975 provide a detailed formula for determining the qualifying incremental cost of property when the property has a dual function. See Proposed Treas. Reg. §1.103-8(g)(3)(iii). Use of the allocation formula is required where one of the "functions" is to provide an economic benefit to the user.

"function" of the facility. In contrast, the economic advantages that can be derived from an ERC are not derived from the operation or "function" of the facility, but rather from the state or local agency's policy in implementing the Clean Air Act.

Some limited support for such a conclusion can be found in Letter Ruling 7932050 (May 10, 1979). In that ruling, the taxpayer operated a steam generator designed to fire either coal, oil, or both in combination. When it fired oil only, the collector satisfied air pollution regulations. When it fired coal, or oil and coal at high levels of steam production, the standards of the air pollution regulations could not be met. The taxpayer desired to use coal because it was a cheaper fuel. But to use coal and satisfy the air pollution regulations, the taxpayer would have to install a scrubber system. The IRS ruled that the cost of the scrubber system could be financed by industrial development bonds. In so doing, it concluded that the cost savings resulting from the use of coal did not constitute an "economic benefit," because the savings were not the result of installation of the scrubber. Thus, while the scrubber had the indirect consequence of allowing the taxpayer to use a cheaper fuel, such cost savings were not considered to be derived from the operation or function of the scrubber.

In view of Letter Ruling 7932050, the IRS could conclude that the economic benefit of an ERC is similarly not derived from the operation or function of the facility used to create it, but from the firm's decision (analogous to the taxpayer's decision to use coal in Letter Ruling 7932050) to exceed current requirements, certify the emission reduction, and market the ERC.

d. Small Bond Issues

Where qualification of equipment as an "air pollution control facility" is in doubt, financing through the less restrictive tax-exempt small issues may be available. Equipment financed through such small issues does not need to meet the stringent requirements for large bond issues discussed above.

For a bond issue of $1 million or less, tax-exempt industrial development bonds may be used if substantially all (90 percent) of the proceeds are devoted to the acquisition, construction, reconstruction, or improvement of land or depreciable business property, including pollution control equipment.

In addition, a $10 million small issue may be available if substantially all (90 percent) of the proceeds are used for the acquisition, construction, or improvement of land or depreciable business property. This funding alternative is not available, however, if the cost of the pollution control equipment and other "capital expenditures" made by the firm in the same locality are more than $10 million, even though the aggregate face amount of the issue is less than $10 million. In determining whether the $10 million limitation has been exceeded, costs chargeable to the company's capital account incurred during the six-year period beginning three years before the date of the issue and ending three years after the issue are taken into account as "capital expenditures." This significant limitation on the use of a $10 million small issue relating to "capital expenditures" does not apply to a $1 million small issue.

6. Will a Firm be Taxed on Government Subsidies Made to Reduce Pollution?

A firm should not be taxed on government grants made to induce the construction and installation of abatement equipment if the grant constitutes a "contribution to capital." Under rules established by the Supreme Court, tax-free contributions to capital can be made where:

(1) the recipient is a corporation;

(2) the recipient acquires ownership of the control equipment;

(3) the grant proceeds are used exclusively to purchase the equipment; and

(4) the grant is bargained for, but is not compensation for a specific service.

Although such government grants will not be taxed, the tax basis in the equipment acquired will be reduced by the amount of the grant. Thus, the firm will receive a reduced benefit for its depreciation, rapid amortization, or accelerated cost recovery deductions.

Government grants subsidizing the expense of operating and maintaining any pollution control equipment probably will be taxable, but the recipient will be able to deduct the corresponding expenses. Also, subsidy payments made to an individual businessman or a partnership probably will be taxable because contributions to capital are made to corporations.

a. Importance of Contribution to Capital Treatment

Under Section 118(a) a corporation is not taxed on government grants made to induce the construction and installation of control equipment if the grant constitutes a contribution to capital. Treas. Reg. §1.118-1 provides:

> Section 118 also applies to contributions to capital made by persons other than shareholders. For example, the exclusion applies to the value of land or other property contributed to a corporation by a governmental unit or by a civic group for the purpose of inducing the corporation to locate its business in a particular community, or for the purpose of enabling the corporation to expand its operating facilities. However, the exclusion does not apply to any money or property transferred to the corporation in consideration

for goods or services rendered, or to subsidies paid for the purpose of inducing the taxpayer to limit production.

If a subsidy or reimbursement payment qualifies as a tax-free capital contribution, it will have the following collateral consequences:

- The grant will not increase the company's earnings and profits for tax purposes. This is significant because earnings and profits determine how much of a company's distributions to stockholders will be taxable as dividends.

- Under Section 362(c)(2) the basis of the acquired equipment will be reduced by the amount of the grant, to the extent that the equipment is acquired within 12 months of the receipt of the grant. In addition, any portion of the grant not expended within 12 months will reduce the company's basis in other properties. These basis adjustments will materially affect the company's overall tax benefits resulting from the acquisition of such equipment, e.g., the investment or energy tax credit and depreciation, amortization or accelerated cost recovery deductions.

The test for determining what constitutes a non-taxable contribution to capital is found in the Supreme Court case of United States v. Chicago, Burlington & Quincy Railroad, 412 U.S. 401 (1973), where the court listed five characteristics of a contribution to capital:

(1) it becomes part of the working capital of the corporation;

(2) it is not compensation, such as a direct payment for a specific, quantifiable service provided to the transferor by the corporation;

(3) it is bargained for;

(4) it foreseeably results in a benefit to the corporation in an amount commensurate with its value; and

(5) it will ordinarily, but not always, be employed in or contribute to the production of additional income.

This five-part test looks to both the function of the subsidy and to the motives in the transfer. See also, Edwards v. Cuba Railroad Co., 268 U.S. 628 (1925) (functional test; subsidies given to a corporation to promote the construction of a railroad were not taxable because they were to reimburse the corporation for capital expenditures); Brown Shoe Co. v. Commissioner, 339 U.S. 583 (1950) (motive test; properties transferred to a corporation by a community group as an inducement to locate its factory in the community held not taxable because the community group did not anticipate any direct benefit from the contribution, but only expected a benefit to the community at large). Contrast, Detroit Edison Co. v. Commissioner, 319 U.S. 98 (1943) (contribution to capital treatment not available where transferor expects a direct service for the transfer that will benefit the transferor individually).

b. Contribution to Capital Treatment Available

Where the construction and installation of abatement equipment is financed by a government grant and the equipment becomes part of the operating capital of the company, the grant should qualify as a non-taxable contribution to capital. In Letter Ruling 8017095 (Jan. 30, 1980) the IRS considered the tax consequences of a government grant to reduce pollution. The grant also was intended to ensure long-term stability of employment, viability of mill operations, and protection of the environment. The grant was not given in consideration for goods or services rendered, or as a subsidy paid for the purpose of inducing the company to limit production. The ruling held that the grant qualified as a tax-free contribution to capital.*

The same conclusion would not apply to grants made for the operation and maintenance of abatement equipment rather than the purchase and installation of such equipment. Such grants would not become part of the working capital of the company and therefore could not satisfy the first characteristic of the Supreme Court's five-part test in Chicago, Burlington, supra. Rev. Rul. 73-566, 1973-2 C.B. 152. Although grants subsidizing operating and maintenance expenses would be taxable, the firm would be entitled to an offsetting deduction for these expenses.

The IRS conclusion in Letter Ruling 8017095 also would not extend to "grants" from private companies in the offset case discussed in Appendix B. Such grants from private sources are motivated by a desire to secure offsets in a nonattainment area. The direct benefit to the transferor intended to result from the transaction in the form of the offset should preclude contribution to capital treatment under the second feature of the Supreme Court's test in Chicago, Burlington.

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*Although the ruling did not not address the situation where an ERC is created, this should not change the result. See Brown Shoe, supra.

Tax-free capital contribution treatment also would not apply to government grants made to unincorporated firms or individuals. See Rev. Rul. 76-6, 1976-1 C.B. 176. The exclusion from income found in Section 118 only applies to corporations.

In summary, grants made to reduce pollution will be treated as tax-free contributions to capital only where:

(1) the recipient is a corporation;

(2) the grant is made for the acquisition of control equipment, and not for operating and maintenance expenses; and

(3) the grant is made by a government agency or other group that does not seek a direct benefit from the grant. It does not appear that improvement of the environment for the benefit of the community at large constitutes such a direct benefit.

7. What are the Tax Consequences in an Equipment Leasing Transaction?

The primary tax benefit to a firm leasing control equipment is the deductibility of rental payments. For tax planning purposes, the primary consideration is to ensure that the IRS will not recharacterize the lease transaction as a purchase of the control equipment. Otherwise, the purported lessee will be treated as a buyer and owner of the property and lose its rental deduction. In addition, the purported lessor will be treated as a seller and lose its investment tax credit and depreciation or cost recovery deductions although it will not be required to include the rental payments as income. The IRS generally will treat the transaction as a sale, rather than a lease, if all the economic benefits and burdens of ownership are shifted to the lessee, unless the transaction qualifies under a special "safe harbor" rule enacted as part of the Economic Recovery Tax Act of 1981.

a. Rental Deduction Allowable

Section 162(a)(3) allows as an ordinary and necessary business expense "rentals or other payments required to be made as a condition to the continued use or possession, for purposes of the trade or business, of property to which the taxpayer has not taken or is not taking title or in which he has no equity." Rental payments which are reasonable in amount, solely for rental use privileges, and made in connection with a trade or business satisfy this provision. Under Section 461(a) the payments will be deductible in the year paid or accrued, depending on whether the lessee is a cash-basis or an accrual-basis taxpayer.

b. Sale vs. Lease Problem

The primary tax problem in leasing transactions is to make sure that the IRS does not treat the transaction as a sale. Because control equipment is generally designed for the exclusive use of a single firm, any transaction that is structured as a lease of the control equipment is likely to have provisions that make it similar to a sale transaction in economic reality. Thus, treatment by the IRS of a lease of control equipment as a sale is a particular danger.

Treating the lease transaction as a sale would mean that "rental" payments would be considered installment payments of principal and interest made for the purchase of the pollution control equipment, and therefore would not be deductible as rent by the "lessee" using the asset. In addition, the "lessor" would not be treated as the owner of the equipment for purposes of the investment or energy tax credit, or for depreciation, accelerated cost recovery or 60-month rapid amortization.

A lease of control equipment will be recognized by the IRS as a lease where the lessor retains the "benefits and burdens" of ownership, i.e., the lessor derives economic gain or loss as the property increases or decreases in value. In Rev. Rul. 55-540, 1955-2 C.B. 39, the IRS stated that it may recharacterize a lease as a sale transaction where one or more of the following conditions are present:

- portions of the periodic payments are applied for the acquisition of the property by the lessee;
- the lessee will acquire title upon the payment of a stated amount of "rentals" which under the contract it is required to make;
- the total amount which the lessee is required to pay for a relatively short period of use constitutes an inordinately large proportion of the total sum required to be paid to secure the transfer of the title;
- the agreed "rental" payments materially exceed the current fair rental value;
- the property may be acquired under a purchase option at a price which is nominal in relation to the value of the property at the time when the option may be exercised, as determined at the time of entering into the original agreement, or which is a relatively small amount when compared with the total payments which are required to be made; or
- some portion of the periodic payments is specifically designated as interest or is otherwise readily recognizable as the equivalent of interest.

In addition, the IRS has issued guidelines which it uses for ruling purposes in determining whether a "leveraged lease" will be treated as a lease for tax purposes. In general, a leveraged lease is a net lease where the lessor has borrowed to finance acquisition of the asset, the lease term covers a substantial part of the useful life of the leased property, and the lessee's rental payments are sufficient to discharge the lessor's payments to the lender. Under the IRS guidelines, a transaction is characterized as a lease if:

(1) the lessor's minimum at-risk investment in the property throughout the lease term is 20 percent of cost;

(2) the lessor has a positive cash flow and a profit from the lease independent of tax benefits;

(3) the lessee does not have a right to purchase the property at less than fair market value;

(4) the lessee does not have an investment in the lease and does not lend any of the purchase costs of the owner; and

(5) use of the property at the end of the lease term by a person other than the lessee must be commercially feasible.

Pollution control equipment ordinarily is special use property in the sense that it generally is designed for use at a specific point source. Consequently, it may be difficult to qualify a lease of such equipment under the ruling guidelines because they require feasibility for use by another firm at the end of the lease term. However, new rules enacted in Section 201 of the Economic Recovery Tax Act of 1981 present significant opportunites for leasing of pollution control equipment to create ERCs. The new provisions create a "safe harbor" that guarantees that a transaction will be characterized as a lease for purposes of allowing the lessor the benefits of the investment tax credit and accelerated cost recovery deductions. The safe harbor is satisfied if the following conditions are present:

(1) the lessor and lessee must affirmatively elect to treat the lessor as owner of the property;

(2) the lessor must be a corporation or a partnership of corporations;

(3) during the lease term and when the property is placed in service, the lessor must have a minimum "at-risk" investment (other than financing from the lessee or a related party) of not less than ten percent of the basis of the property;

(4) the term of the lease (including any extensions) does not exceed 90 percent of the useful life of the property;

(5) the property is new depreciable business property; and

(6) the property is leased within three months after it was first placed in service.

If these safe harbor rules are met, the transaction will qualify as a lease regardless of the existence of "sale" factors under the IRS guidelines. Moreover, the lease will not be recharacterized as a sale even if the lease agreement provides that the lessor will sell the property to the lessee for a fixed price at the end of the lease term.

In summary, any financing alternative that contemplates a continuing leasing arrangement between the parties must be carefully structured to comply with either the benefits and burdens test, the IRS guidelines, or the safe harbor rules of the 1981 Act to ensure that the company that is intended to benefit from the investment tax credit and accelerated cost recovery deductions will be recognized for tax purposes as the owner of the property.

C. Tax Attributes of an ERC

In section A tax considerations relating to the costs of acquiring and installing pollution control equipment were discussed. Generally, the tax benefits for the acquisition and construction costs are obtained through the investment tax credit and deductions for depreciation, amortization, or accelerated cost recovery. This section discusses the tax treatment of administrative costs incurred by a firm in qualifying, quantifying and certifying an ERC.

Before deciding to initiate an emission reduction, a firm may incur costs in consulting with appropriate agencies and estimating the credit potentially available. Engineers may be needed for testing and measuring emission reductions, preparing applications, or rewriting permits. Attorneys may be hired to represent a firm during the certification process. Costs may be incurred in establishing and documenting a baseline of current emissions for measuring any potential reduction. The responsible agency may also decide to pass on to the firm, as a permit fee, the agency's costs incurred in quantifying an emission reduction or in revising the source's permit. The primary issue relating to administrative costs incurred during the certification process is whether the expenses may be currently deducted or must be capitalized.

A company that decides to participate in the banking program may have no intention of immediately using the ERC. The company may consider it advantageous to retain the banked ERC--

- to satisfy more stringent emission requirements that may be anticipated in the future;
- for later sale or lease to another firm when market conditions are more favorable;
- for future use within a bubble application or at an existing source, as an offset or in new source netting.

The primary issues relating to a banked ERC that has not been used to meet a permit requirement are whether the ERC's basis may be amortized and whether a loss deduction is available if SIP revisions result in some loss of value.

The final component of the banking system is the use of an ERC to meet a regulatory requirement. Typical uses may include:

- use within a bubble to reduce costs of meeting current emission limitations;
- use as an offset in a nonattainment area for a planned new or expanded facility;
- use in an attainment area to meet prevention of significant deterioration requirements; and
- use in an attainment or nonattainment area to avoid new source review permitting and associated requirements.

Tax issues related to the use of an ERC include whether an amortization deduction is available once the ERC is used, and if so, how should the deduction be computed.

8. Can the Administrative Costs Incurred in Qualifying and Certifying an ERC Be Currently Deducted As Business Expenses and Do They Qualify for the Investment Tax Credit?

A firm is not entitled to an immediate deduction or an investment tax credit for the costs of qualifying and certifying an ERC.

An expenditure made to acquire property with a potential useful life of over one year is not currently deductible for tax purposes. Commissioner v. Lincoln Savings & Loan Ass'n, 403 U.S. 345 (1971). Consequently, a firm is not entitled to an immediate deduction for the full amount of administrative costs incurred during the certification process because at least a portion of such costs are properly allocable to the acquisition of the ERC, and an ERC generally has such an extended life. Instead, such costs must be capitalized, i.e., must be added to the basis of the ERC. As a result, they will be recouped for tax purposes either (1) through amortization deductions (if allowed -- see discussion below) or (2) through a reduction in the gain (or increase in the loss) that is realized when the ERC is sold or disposed of permanently.

Under Section 48(a) the investment tax credit is limited to a qualified investment in tangible property. Consequently, the investment tax credit is not available for the administrative costs of certifying an ERC, since the ERC is an intangible asset.* See Rev. Rul. 71-121, 1971-1 C.B. 80 (a right to a flood "easement" acquired for a dam project does not qualify for the investment tax credit or accelerated depreciation).

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*An intangible asset is an asset that bestows rights and privileges upon the owner, but does not have physical substance except to the extent the rights and privileges are evidenced by contracts, patents, certificates or other similar documents.

9. Is an Amortization Deduction Available for the Cost of a Banked ERC?

Whether an amortization deduction will be allowable for the cost of a banked ERC may depend upon applicable state banking rules. An amortization deduction will not be available where the useful life of the ERC cannot be determined. Consequently, where banking rules do not provide an ascertainable expiration date for an unused ERC, an amortization deduction will not be allowable during the banking period.

Even if state banking rules establish an ERC expiration date, the IRS can be expected to take the position that a banked ERC is not amortizable either because (1) it has not yet been "placed in service" in a trade or business, (2) it is non-income producing (as an investment asset), or (3) it has an indeterminate useful life measured by its potential use to meet a permit requirement. While there are arguments to support amortization, the IRS may prevail in denying amortization.

a. Amortization Only Allowable Where Useful Life Can Be Determined

Section 167 allows a depreciation or amortization deduction for a reasonable allowance for the exhaustion, wear and tear (including a reasonable allowance for obsolescence) for property used in the taxpayer's trade or business or held for the production of income. The cost of creating an intangible asset, such as an ERC, may be amortized under Section 167, but only if the ERC has a useful life which can be estimated with reasonable accuracy. Treas. Reg. §1.167(a)-3. Treas. Reg. §1.167(a)-1(b) defines "useful life" as "the period over which an asset may reasonably be expected to be useful to the taxpayer in his trade or business or in the production of his income." The taxpayer must demonstrate with "reasonable certainty" or "reasonable accuracy" the period beyond which the intangible property right will have no value. Rodeway Inns of America v. Commissioner, 63 T.C. 414 (1974).

To sustain an amortization deduction, the burden is on the firm to establish the useful life of a banked ERC. An amortization deduction will not be allowed unless the implementing regulations for the banking and controlled trading program provide a specific period in which the ERC must be used by the owner or expire. Even if applicable regulations include a termination date, renewability provisions could preclude an amortization deduction if renewal of the ERC is reasonably certain. See Rev. Rul. 67-113, 1967-1 C.B. 55 (amortization of airline route certificates allowed because renewal did not occur as a matter of course or with reasonable certainty); Chronicle Publishing Co. v. Commissioner, 67 T.C. 964 (1977).

Furthermore, even if banking rules establish an expiration date for an ERC, the IRS could take the position that the useful life of a banked ERC is determined not by the banking period (since the ERC is not being used then) but by the ERC's potential use to meet a regulatory requirement. Since the potential duration of such a use would be indeterminate during the banking period, so would the useful life of the ERC. Stated differently, the IRS could argue that the asset in question is the intangible right to emit pollution, and that before the ERC is applied to a specific point source, it is impossible to determine the useful life of such an asset.

In summary, amortization deductions for a banked ERC will not be available unless state banking rules provide an expiration date for an unused ERC. Even if an expiration date for its use is provided, the IRS has a good argument that a banked ERC does not have an ascertainable useful life because such a "useful life should include any period during which the ERC can be used to meet a regulatory requirement and that such potential use is not determinable during the banking period. The IRS also has several other potential arguments discussed below to deny an amortization deduction.

b. Placed in Service Problem

An amortization deduction is allowable only when the asset is "placed in service." Treas. Reg. §1.167(a)-10(b). Property is "placed in service" when it is first placed in a condition or state of readiness and availability for a specifically assigned function, whether in a trade or business or in the production of income. Treas. Reg. §1.167(a)-11(e)(1)(i). Therefore, even if the SIP banking rules establish an expiration date for a banked ERC, the IRS may seek to deny an amortization deduction on the alternative grounds that (1) a banked ERC is not "placed in service" in the firm's trade or business until it is available for use by the owner and (2) it is a non-income-producing investment asset during the banking period.

A firm that has created or purchased an ERC for its own use (rather than for sale) can contend that the banked ERC is "available for use" for its intended function. The IRS has frequently ruled that property is placed in service and becomes depreciable when it is "available for use," even though it actually isn't used until later. See, e.g., Rev. Rul. 79-203, 1979-2 C.B. 94 (coal-fired steam electrical generating unit considered placed in service after testing even though related pollution control equipment not operational); Rev. Rul. 76-428, 1976-2 C.B. 47 (nuclear electrical generating unit considered placed in service even though further testing required); Rev. Rul. 69-201, 1969-1 C.B. 60 (replacement parts considered placed in service before used for repairs).

Unless the firm can show a clear intent to apply the ERC for its own use, rather than an intent to hold the ERC for investment, the IRS may deny amortization during the banking period. In each situation where the IRS has allowed pre-service depreciation, the asset was purchased for use in the taxpayer's trade or business. In contrast, an ERC may be held for investment purposes and subsequent sale to another firm. As non-income-producing investment property rather than business property, the banked ERC would not be amortizable. See, Hirschel v. Commissioner, Tax Ct. Mem. 1981-189 ("The mere expectation that the property will appreciate in the future and thus might eventually be sold at a profit is not sufficient to establish [a depreciation deduction]"); but cf., Mitchell v. Commissioner, 47 T.C. 120 (1966), nonacq., 1970-2 C.B. xxii.

10. Is Amortization Available When an ERC is Used in an Operating Permit?

An amortization deduction is allowable for the cost of an ERC being used (1) only to the extent of the excess of the cost of the ERC over the estimated salvage value of the ERC, and (2) only if the firm can establish a useful life for the benefits derived from the ERC. Since permits generally do not have a limited life, the IRS is likely to take the position that the cost of such an ERC may not be amortized. A firm can argue, however, that the usefulness of an ERC is limited because the facility with which the ERC is being used has a limited useful life. In analogous cases dealing with intangible rights acquired through government programs, courts have allowed amortization over the life of the tangible asset to which the right relates. Consequently, while the IRS has a strong basis for denying amortization, there is some support for the position that amortization of ERC costs should be allowed over the useful life of the facility. Nevertheless, if the ERC would still have resale value after the facility is exhausted, such estimated "salvage value" would reduce the amortizable amount.

If amortization of an ERC is allowable, the deduction generally will be allowable only on a straight-line basis. Accelerated depreciation, cost recovery and 60-month rapid amortization are not available for intangible assets.

a. Useful Life Problem

After an ERC is used, it loses its status as a separate marketable commodity and becomes an integral part of the firm's permit. In determining whether the cost of creating or purchasing an ERC may be amortized after the ERC is so incorporated, a major issue is whether the ERC then has an ascertainable limited useful life. Because permits generally are renewable indefinitely, it may be difficult for a firm to show that its permit has an acertainable limited useful life. See, e.g., Rev. Rul. 65-228, 1965-2 C.B. 43; Hoek v. Commissioner, 51 T.C. 195 (1968) (milk production quotas renewable annually not amortizable); Nachman v. Commissioner, 191 F.2d 934 (5th Cir. 1951) (premium paid for renewal privileges for liquor license not amortizable). Consequently, the IRS is likely to argue that amortization is not allowable for any ERC incorporated into such a renewable permit, because the ERC does not have any separately ascertainable useful life.

Nevertheless, rulings dealing with pipeline easements may support a contrary position that the useful life of an ERC cannot be deemed to extend beyond the life of the operating facility with which the ERC is being used. The IRS initially took the position that taxpayers transmitting natural gas or oil were not entitled to amortize the cost of acquiring pipeline right-of-way easements, either because the easements contained no provision to the effect that they were granted for a specific number of years, or because the easement would extend indefinitely for as long as the taxpayer chose to replace the pipe. The courts rejected these arguments, however, on the ground that the easement loses its usefulness when the pipeline is exhausted. Consequently, amortization was allowed for the easement based on the useful life of the pipeline. _Northern Natural Gas Co. v. O'Malley_, 277 F.2d 128 (8th Cir. 1960). _Contrast_, Rev. Rul. 71-120, 1971-1 C.B. 79, _modified by_, Rev. Rul. 71-448, 1971-2 C.B. 130, and Rev. Rul. 72-403, 1972-1 C.B. 102 (IRS ruled that easement costs are amortizable over the life of the pipeline, but warned that the useful life of the pipeline might be adjusted "to the extent that replacement of part or all of an existing pipeline on the original right-of-way is clearly contemplated or is the practice of the taxpayer.")

While these pipeline easement cases support the position that the useful life of an ERC does not extend beyond the useful life of the operating facility, the courts may conclude that once an ERC is incorporated into a permit, its useful life is as indeterminate as that of the permit.

b. _Salvage Value Problem_

As a general rule, amortization deductions for the cost of an intangible asset are not available to the extent of the estimated salvage value of the asset.* Salvage value is the amount (determined at the time of acquisition) which is estimated to be realizable upon sale or other disposition of the asset when it is no longer useful in the taxpayer's trade or business and is to be retired from service. Treas. Reg. §1.167(a)-1(c).

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*Under Section 167(f) a taxpayer may elect to reduce the amount treated as salvage value by as much as ten percent of an asset's basis, if such asset has a useful life of three years or more.

Even if the user of an ERC can base its useful life on the anticipated life of the facility, an ERC's potential salvage value could limit amortization deductions if state regulations permit a resale of the ERC upon the source shutdown. Such salvage value cannot be amortized, but can only be recouped for tax purposes when the ERC is sold. At such time it is reflected in determining the amount of taxable gain or loss realized on the sale.

c. Amortization Method

If an ERC qualifies for amortization after it has been used, the deductions must be taken ratably over the life of the ERC. Although Section 167(b) permits the use of three accelerated depreciation methods, these methods are not available for intangible property, such as an ERC. In some unusual circumstances, amortization other than straight-line may be used if the decline in value of an ERC over its useful life does not occur on a uniform basis and a more accurate way to measure the decline can be convincingly shown. Kiro, Inc. v. Commissioner, 51 T.C. 155 (1968); Computing & Software, Inc. v. Commissioner, 64 T.C. 223 (1975). See also, Rev. Rul. 79-285, 1979-2 C.B. 91 (IRS stated that any method other than the straight-line or income forecast method of computing the amortization deduction for intangible assets must "clearly reflect income").

In addition, if the applicable regulations provide that an identifiable portion of an ERC may no longer be used after a specified number of years, but the remainder can be used over a longer period of time, amortization over the shorter period may be available for the costs properly allocable to that portion. See Rev. Rul. 67-113, 1967-1 C.B. 55 (allocation of the total costs to various airline route applications required to determine amortization deduction).

d. ERC Leasing Used To Avoid Amortization Problem

Securing amortization deductions for the cost of an ERC may be difficult. This can have a significant impact on the financing option used for the acquisition of an ERC. Since the tax benefit of amortization deductions may not be available upon the outright purchase of an ERC, many firms may decide upon long-term ERC leasing arrangements, if they are permitted by state regulations. An ERC leasing transaction provides significant planning opportunities because it allows the ERC user to claim a current deduction for its rental payments that would not be available for ERC purchase costs.

11. Is a Loss Deduction Available if an Unused ERC Expires or SIP Revisions Result in a Reduction in Value of a Banked ERC?

A firm should be entitled to a loss deduction where an unused ERC expires or a SIP revision results in the loss of some or all of the emission rights granted by an ERC. The loss would be measured by the firm's basis for the ERC, or portion thereof, attributable to such a loss. Because the expiration or loss of such rights would not constitute a sale or exchange of the ERC, the deduction would constitute a favorable "ordinary" loss, rather than a capital loss.

a. Loss Deduction Available Where an Unused ERC Expires or is Eliminated

A firm should be entitled to a loss deduction if an unused ERC expires under applicable banking rules, or is reduced in face amount or eliminated as a result of a revision to the State Implementation Plan (SIP). The amount of the deductible loss cannot exceed the adjusted basis of the ERC (i.e., its original cost as adjusted for amortization, if allowable). Treasury Regulation §1.165-1(c)(1).

Any loss would be an ordinary loss, rather than a capital loss, because under Section 165(f) capital losses occur only on the "sale or exchange" of a capital asset. An uncompensated loss of an ERC would not constitute such a sale or exchange.

b. Loss Deduction Can be Denied Under Certain Circumstances Where An ERC Becomes Worthless

Treas. Reg. §1.165-1(b) provides that to be allowable as a deduction a loss must be evidenced by a closed and completed transaction and fixed by an identifiable event. A mere reduction in value of an ERC still retained by a firm does not give rise to a deductible loss, because such reduction in value does not satisfy the closed transaction requirement.

Cases dealing with losses of government-granted privileges have established the rule that the worthlessness of such a privilege does not result in a deductible loss where the firm still has the right to engage in the activities subject to the privilege. Therefore, a taxpayer is not entitled to a deduction for its investment in a monopolistic privilege that becomes worthless when the government opens the privilege to competition. See Consolidated Freight Lines v. Commissioner, 101 F.2d 813 (9th Cir. 1939), cert. denied, 308 U.S. 562 (1939) (licensing system for trucks abolished); Chase Candy Co. v. United States, 126 F. Supp. 521 (1954) (sugar rationing system abolished); Reporter Publishing Co. v. Commissioner, 201 F.2d 743 (10th Cir. 1953) (exclusivity of membership in Associated Press terminated); Letter Ruling 7744008 (July 28, 1977) (selling time system for tobacco auctions eliminated).

On the other hand, confiscation of a government-granted privilege is deductible if the confiscation causes the firm to lose the right to engage in the activities allowed by the privilege. Parmelee Transportation Co. v. United States, 351 F.2d 619 (Ct. Cl. 1965). Compare, Greaves v. Commissioner, Tax Ct. Mem. 1980-535 (loss allowable on confiscation of cotton acreage allotment); Elston Co. v. United States, 21 F. Supp. 267 (Ct. Cl. 1937) (loss allowable where liquor license lost as a result of Prohibition); with Rev. Rul. 74-306, 1974-2 C.B. 58 (loss denied where revision in law made allotments less valuable); Beatty v. Commissioner, 46 T.C. 835 (1966) (loss denied where liquor license loses value when exclusivity of license is eliminated).

Under these principles it appears that whether a loss deduction will be allowable when a banked ERC becomes worthless depends on the nature of the event causing the loss. If, for instance, a banked ERC becomes worthless because a SIP revision allows for relaxed standards for emission of the particular pollutant, a deduction probably would not be allowable. In such a situation, the firm's underlying right to emit the volume of pollutants specified in the ERC would not be restricted. On the other hand, the expiration of an unused ERC under the banking rules or a SIP revision that results in the outright forfeiture of an ERC should result in a deductible loss. In these circumstances, the holder of the ERC not only loses its ability to sell the valuable commodity, but also loses its right to use the ERC in a permit.

A more difficult question is whether a loss deduction is available where a SIP revision results in the reduction of an ERC by a specific percentage amount. In such a case, the IRS could view the reduction of the ERC as a nondeductible shrinkage in the value of the ERC. However, the IRS is not likely to be sustained on this position where banking rules permit the division of a single ERC into several ERCs. Under such circumstances, a SIP revision reducing an ERC by a percentage amount would result in the total loss of all the firm's rights in a distinct, severable portion of the ERC. In this respect, an ERC is similar to shares of stock in a corporation that are acquired in a block. Each share of stock carries with it rights in the corporation that are separately ascertainable. A total loss of only a portion of the shares is deductible whether or not other shares in the block also become worthless. As with a block of stock, an ERC is composed of a group of individual units measured in volumes of pollutants (e.g. tons per year). An ERC can be divided and its components independently marketed. Consequently, the partial loss of an individual portion of an ERC should not be viewed as a mere reduction in value of the ERC for tax purposes, but as the total loss of a distinct asset. In such circumstances, the cost basis of the ERC must be allocated to its component parts to determine the deductible basis attributable to the confiscated portion. Rev. Rul. 67-113, 1967-1 C.B. 55 (situation 3).

12. What Is The Tax Basis Of An ERC?

The basis of an ERC owned by the firm that created it will be the administrative costs incurred during the certification and banking process. The basis in the ERC will not include any costs relating to the acquisition and installation of the pollution control equipment responsible for the emission reduction. The equipment will have its own distinct basis. The basis of an ERC owned by a purchaser will be the cost of acquisition.

a. Basis In The Hands Of A Purchaser

The tax basis of an ERC is important in determining the owner's:

- amortization deduction (if available), and
- taxable gain on the sale of the ERC.

Under Section 1012, a purchaser's basis in an acquired ERC is its cost. This includes all amounts paid to the seller as well as any additional sums expended to secure title, such as registry or transfer fees or any locally required certification costs. See Treas. Reg. §1.263(a)-2(c). In a cash transaction, the tax basis of an ERC is readily determinable. If other property also is tendered in exchange for an ERC, the fair market value of such property together with any cash paid will be the basis of the ERC. If a portion of the consideration paid is in the form of a note, as may be the case where an ERC is acquired on an installment basis, the tax basis will include the face value of the note. Crane v. Commissioner, 331 U.S. 1 (1947); Rev. Rul. 77-110, 1977-1 C.B. 58. However, speculative contingent installments, the payment of which is uncertain and depends on future events (e.g. profits of the purchaser), may not be includible in the original basis of a purchased ERC. Redford v. Commissioner, 28 T.C. 773 (1957).

b. Basis In The Hands Of The Creator

In the hands of the creating firm, the tax basis of an ERC will be limited to the expenditures allocable to the acquisition of the ERC incurred in the certification process that are required to be capitalized under Section 263. The basis of an ERC should not be increased by any portion of the cost directly attributable to the acquisition or construction of the abatement equipment responsible for the emission reduction.

Except in cases where administrative expenses are unusually high, an ERC owned by the creating firm will have a tax basis which is relatively low when compared with the potential value of the ERC. The primary significance of this is that upon the sale of the ERC the creating source may realize a large amount of taxable income. As a result tax planning should play a major role in structuring an ERC sales transaction. A firm may wish to postpone the ERC sale for one year or enter into a short-sale transaction to secure tax-favored long-term capital gain treatment. Installment sales also may be undertaken to achieve deferred tax recognition of the gains.

D. ERC Transfers

The most common method of disposing of an ERC will be by sales or option transactions. Typically, the company needing an ERC to expand its operations in a nonattainment area or to reduce its control costs through use of a bubble will acquire it from the firm creating it, a governmental agency, or a dealer. An ERC may be acquired for cash or deferred obligations in an outright sale or upon exercise of an ERC option. Alternatively, a firm needing an ERC could purchase another company's entire business and in that manner acquire the ERCs owned by the company. An important tax issue for the seller of an ERC is the character of the gain or loss, i.e., will it be long-term or short-term capital gain or loss, or ordinary income?

Where permitted by applicable regulations, ERC leasing may become a common transaction. For example, ERC leasing could be used where an emission reduction is needed to meet control requirements at a facility with a limited remaining useful life. Leasing an ERC for five years may be more economical than retrofitting the facility or purchasing an ERC for an indefinite period. ERC leasing transactions also may be an important tax-planning vehicle to secure current deductions for rental payments where amortization deductions for the cost of an ERC are not available. Tax considerations relating to ERC leasing are similar to the issues discussed in section B with respect to control equipment leasing and will not be repeated here. However, it should be noted that the liberal "safe harbor" leasing rules newly enacted as part of the Economic Recovery Tax Act of 1981 only apply to tangible business property, and not to intangible property, such as ERCs.

13. What Are The Tax Consequences To The Purchaser Upon The Acquisition Of An ERC?

The purchaser of an ERC cannot deduct the purchase price currently because the ERC is an asset with a useful life of more than one year. Acquisition costs must be capitalized and will become part of the basis of the ERC.

After the acquisition, it is arguable that the purchaser may amortize the cost of the ERC, but the issues and difficulties for the purchaser in qualifying for such treatment will be similar to those for the seller (see the discussion in section C). The benefits of 60-month rapid amortization or accelerated cost recovery and the investment tax credit are not available because the ERC is an intangible asset.

a. Treatment of the Cost of an ERC

Acquisition costs of governmentally issued certificates or allocations analogous to ERCs are considered by the IRS to be capital expenditures, amortizable over the useful life of the certificate, if such useful life can be ascertained. See, e.g, Rev. Rul. 67-113, 1967-1 C.B. 186 (cotton acreage allotment). Since an ERC has a usefulness which normally will extend beyond the taxable year of acquisition, the cost of purchasing an ERC may not be currently deducted as a business expense.

Elective 60-month rapid amortization, accelerated cost recovery, and the investment tax credit are not available for the cost of an ERC (whether purchased or created by the owner), because the ERC is an intangible asset. However, it is arguable that amortization on a straight-line basis is allowable either during the banking period or once an acquired ERC is used in an operating permit. See the discussion of ERC amortization in section C.

b. Financing the ERC Purchase

Acquisition costs of an ERC can represent a substantial portion of the total cost of constructing a new source or expanding an existing source in a nonattainment area. Consequently, firms will have to consider the various financing alternatives (e.g. loans creating leverage, ERC leases, bond issues, etc.). Tax issues relating to financing an ERC transaction generally are the same as for financing the acquisition of control equipment discussed in section B. However, special problems may arise if tax-exempt industrial development bonds are being considered as the primary means of financing the acquisition of an ERC.

Since an ERC does not abate pollution or constitute an integral part of an "air pollution control facility," large issue industrial development bonds will not be available if the primary purpose of the bond issue is to finance the acquisition of an ERC.

While the acquisition of an intangible asset technically can qualify under the $1 million or $10 million small issue industrial development bond rules, applicable state laws may not authorize the issuance of industrial development bonds for this purpose. Moreover, under Section 103 the proceeds of the small bond issue used to purchase an asset only qualify if the asset is amortizable and it actually is used by the firm in its business. Treas. Reg. §§1.103-7(b), 1.103-10(b). Therefore, to the extent that an ERC's eligibility for amortization or its ultimate use is in doubt, availability of this type of financing is equally in doubt.

Even though industrial development bond financing may not be viable where the primary purpose of the bond issue is to finance the acquisition of an ERC, the currently proposed Treasury Regulations would permit an "insignificant" portion (less than ten percent) of qualified industrial development bond proceeds to be used for non-qualifying purposes without jeopardizing the tax-exempt status of the bonds. Proposed Treas. Reg. §1.103-8(a)(1)(i). Thus, under the "insignificant" rule, slightly less than 10 percent of the bond proceeds used to construct a new point source would be available for purchasing an ERC and other non-qualifying purposes, if the new point source otherwise qualifies for tax-exempt financing (e.g. an industrial park).

14. What are the Tax Consequences to the Seller of an ERC?

A seller of an ERC will realize gain or loss measured by the difference between the amount realized in the sale transaction and the seller's adjusted basis in the ERC (e.g., as adjusted for any amortization deductions). The creator of an ERC or an investor will derive favorable long-term capital gain treatment only if the ERC has been held for over one year. For dealers regularly buying and selling ERCs, the transaction will result in "ordinary" gain or loss.

a. Measure of the Gain or Loss

Under Section 1001 the amount of gain or loss realized by a seller of an ERC is the amount realized from the sale less the adjusted basis of the ERC. The amount realized is equal to the cash and the fair market value of other property transferred to the seller, and any commissions and selling expenses incurred by the seller reduce the amount realized.* An ERC's adjusted basis is its original cost (including purchase commissions or legal recording fees) as increased by any capital expenditures and as reduced by any deductions allowable for amortization or obsolescence. Section 1016.

b. Installment Sale Treatment Of An ERC

Because profit on the sale of an ERC may be substantial, installment sales may become an important planning tool for the seller to defer recognition of taxable gain. Under Section 453, as amended in 1980 by Pub. L. 96-471, a seller receiving any payments from the sale of an ERC after the taxable year of sale will only have to report any gain realized on such an installment sale of an ERC ratably as the payments are received. Dealers who regularly sell ERCs on an installment basis, and sellers who elect not to have installment sale treatment apply to the sale, will not defer recognition of any part of the gain in this manner.

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*The rule relating to selling expenses does not apply, however, to dealers in ERCs who are in the business of buying and selling ERCs on their own account. Dealers are entitled to currently deduct selling expenses, rather than offset the sales price. Treas. Reg. §1.263-2(e); I.T. 2305, V-2 C.B. 108.

c. Character Of Taxable Gain Or Loss

Gain or loss realized on the sale of an ERC can be either--

(1) ordinary income or loss;

(2) long-term capital gain or loss; or

(3) short-term capital gain or loss.

The character of the taxable gain or loss will depend upon:

- whether the ERC is an amortizable asset or an asset of a "character" which may be subject to amortization even though not amortizable;
- how long the ERC has been held;
- the owner's purpose in acquiring and holding the ERC; and
- the nature of the owner's business.

The sale of an ERC will trigger capital gain or loss (either long-term or short-term) if the ERC is a capital asset. Intangible rights granted under government-sponsored regulatory programs, such as ERCs, may qualify as capital assets. See Rev. Rul. 66-58, 1966-1 C.B. 186 (cotton acreage allotments are capital assets); Parmelee Transportation Co. v. United States, 351 F.2d 619 (Ct. Cl. 1965) (expectation of continued monopolistic privilege is a capital asset). But see, Rev. Rul. 58-296, 1958-1 C.B. 276 (temporary privilege to retain ships under American registry not considered "property"). However, under Section 1221 intangible assets do not qualify as capital assets if they are property held primarily for sale to customers in the ordinary course of a trade or business if they are of a character which may be subject to amortization.

Generally, dealers will be considered to hold ERCs primarily for sale to customers. Consequently, the sale of an ERC by a dealer will result in ordinary income, rather than capital gain.

Capital gain treatment also will depend upon whether the ERC is held "primarily" for sale. In Malat v. Riddell, 383 U.S. 569 (1966), the Supreme Court, in interpreting the term "primarily," stated that the purpose of Section 1221 is to differentiate between "profits and losses arising from the everyday operation of a business" on the one hand and "the realization of appreciation in value over a substantial period of time" on the other. Provisions of the Internal Revenue Manual providing guidelines to agents auditing the construction industry reflect the IRS application of the Supreme Court test. At 4232.7(525)(1)(b) the Manual provides:

> Generally, sales by an investor give rise to capital gains or losses. A person who buys and sells property as his/her principal business is clearly a "dealer". It is equally clear that one who makes only isolated or occasional sales is not a dealer.

The Manual goes on to list six factors derived from case law that are usually used to determine whether a seller is a dealer:

1. frequency and continuity of sales,
2. purpose for which property was acquired and held,
3. improving and developing activities,
4. sales activities,
5. rental activities, and
6. accounting treatment of such property.

See, e.g. Maddux Construction Co. v. Commissioner, 54 T.C. 1278 (1970). Each firm will have to evaluate its own circumstances to determine whether an ERC it sells will qualify as a capital asset.

If an ERC qualifies for amortization during its banking period, the ERC technically would not be a capital asset because it is depreciable business property. See Section 1221(2); Rev. Rul. 58-133, 1958-1 C.B. 277 (real estate considered depreciable business property and not a capital asset, even though never used in a business). Nevertheless, an amortizable ERC held for more than one year probably would constitute a "Section 1231 asset." In that case, it can qualify for favorable long-term capital gain treatment, but only to the extent that any gain realized exceeds any allowable depreciation deductions.* If the amortizable ERC is held for less than one year, its sale will result in ordinary income, not short-term capital gain, because it is not a capital asset.

d. Long-term Capital Gain Treatment Available If ERC Is Held for More Than One Year

Assuming that the ERC qualifies as a capital asset or as a Section 1231 asset, its sale will qualify for favorable long-term capital gain treatment only if it has been "held" by the seller for more than one year. Ascertaining the holding period usually will not be a problem where the seller of an ERC acquired it in a purchase transaction. In determining whether a purchased ERC has been held for more than one year, the day the ERC is acquired is excluded and the day the ERC is sold is included. Rev. Rul. 70-598, 1970-2 C.B. 168.

It is less clear when the holding period starts if the seller is the original source that qualified and certified the ERC. Arguably, the holding period could start either:

- o when the permanent emission reduction is achieved; or
- o upon the certification of the ERC.

The IRS will probably take the position that the holding period of an ERC only starts when it is certified and transferable. See Rev. Rul. 70-644, 1970-2 C.B. 167 (holding period of milk base quotas commences on the date assigned by the market administration). Furthermore, this position is likely to prevail, although an argument can be made that the holding period starts at the time a permanent emission reduction is achieved and certifiable. At such time the firm has a right to an ERC even though the emission reduction has not yet been certified. See _Myers v. Commissioner_, 6 T.C. 258 (1946) (holding period of an invention starts from the date the invention is reduced to practice, not when a patent is secured). However, this position is not likely to prevail because the full bundle of rights evidenced by the ERC is only acquired upon certification. See, Helvering v. San Joaquin Fruit and Investment Co., 297 U.S. 496 (1936) (holding period of property acquired through exercise of an option commences when the option is exercised).

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* The depreciation or amortization deductions are recaptured as ordinary income. Section 1245. As indicated above, Section 1231 assets produce either long-term capital gain or ordinary loss, generally depending on whether the assets overall produce a gain or loss. For a discussion of ERC amortization see section C.

15. What are the Tax Consequences to the Grantor of an ERC Call or Put Option?

The premium received by the grantor of an ERC call or put option is not included in income in the year of receipt. The premium is potentially includible in income only when the option is exercised or expires. Upon exercise of a put option, the grantor of the option acquires the ERC and reduces its cost basis in the ERC by the premium previously received. Upon the exercise of a call option, the grantor sells the ERC and the premium increases the amount realized on the sale. The exercise of either a call or put ERC option is otherwise treated for tax purposes in the same manner as a sale of the ERC. If an ERC option lapses, the premium previously received by the grantor is treated as ordinary income in the year of the lapse.

a. Option Transactions

ERC option transactions may be a method used to reduce financial exposure. For firms creating ERCs, options can provide price protection, deferral of production costs, and elimination of the need for up-front capital. For ERC buyers, benefits can be secured in the elimination of holding costs and elimination of the risk that an ERC eventually may not be needed.

ERC option transactions can be entered into during different stages in the certification process:

- fully perfected ERC - the state has already approved and credited it to its books and the firm has changed its compliance agreement;
- pre-qualified ERC - the proposal to the state regulatory agency has not been made or is still pending.

In addition, an ERC option transaction can be structured in several different ways:

- Call options -- A "call" is an option to buy the ERC at a stipulated price on or before a specified future date. The issuer of the option may or may not be the creator of the ERC. The option holder pays consideration for the option, which is called a premium. Call options usually terminate automatically at a specified date, or, in the case of options for

ERCs that are not yet fully perfected, at a specified date after the ERC has been certified.

- Put options -- A "put" is an option with terms similar to a "call," except that it is an option to sell the ERC, rather than an option to purchase. The issuer of the put option is the potential buyer of the ERC. In exchange for the issuer's binding promise to buy an ERC at a stipulated price, the option holder (which is usually the creator of the ERC) pays a premium.

- Short sales -- A short sale is a contract for the transfer, at a future date, of an ERC which the seller usually does not own at the time of the short sale. Short sales are technically not option transactions because both parties are bound to carry out the ERC sales transaction. As in the case of an option, the immediate transfer of an ERC does not take place at the time of the short sale agreement.

b. Tax Consequences To The Grantor Of An ERC Option

A firm granting an ERC call or put option will not recognize income when it receives the option premium. Rev. Rul. 58-234, 1958-2 C.B. 279. Instead, the premium is ignored for tax purposes until the grantor sells or purchases the ERC or until the grantor's obligation to buy or sell expires by reason of the passage of time. If the ERC option expires, the grantor realizes ordinary income on the premium previously received in the year of expiration. Treas. Reg. §1.1234-1(b).

Upon the exercise of an ERC call option, the grantor sells the ERC to the optionee for the stipulated price. The exercise is treated for tax purposes as a sale of the ERC, except that the premium previously received by the grantor increases the amount realized in determining gain or loss on the sale. The character of the gain or loss (ordinary or capital, short-term or long-term) depends upon whether the ERC is a capital asset in the seller's hands and, if so, whether it has been held for over one year. Thus, dealers in ERCs granting ERC call options generally will recognize ordinary income when the option is exercised.

On the exercise of an ERC put option, the grantor purchases the ERC for the stipulated price, and the exercise is treated for tax purposes as a sale transaction. However, the premium previously received by the grantor of a put option decreases his cost basis in the ERC acquired. The grantor's holding period for an ERC acquired through a put option begins on the date the option is exercised. Thus, favorable long-term capital gain treatment on a resale of the acquired ERC cannot be secured unless the ERC is held for more than one year after the put option is exercised.

16. What Are The Tax Consequences Of An ERC Option To The Holder Who Resells It, Lets It Expire, or Exercises It?

The cost of an ERC put or call option is a nondeductible capital expenditure that becomes the tax basis of the option. When the option is resold, the seller realizes gain or loss which will be long-term capital gain or loss if the underlying ERC would constitute a capital asset to the seller and the option itself is held for more than one year. If an ERC option is allowed to expire, the forfeiture of the option premium is treated as a loss incurred on the sale of an option. Upon the exercise of an ERC call option, the premium previously paid is added to the purchase price of the ERC and the total becomes the tax basis of the ERC acquired. When an ERC put option is exercised, the seller of the ERC subtracts the option premium from the amount realized on the sale. The holding period for such an ERC terminates on the date that the put option is exercised (and the ERC is sold), not previously when the option is acquired.

The cost of an ERC put or call option is a nondeductible capital expenditure. Section 263. Consequently, the premium paid by the optionee becomes the tax basis of the option. When an ERC option is sold by the holder, gain or loss will be realized on the sale transaction, measured by the difference between the amount realized on the sale and the basis in the option. Whether the gain or loss on the option will be ordinary or capital depends upon whether the underlying ERC would be a capital asset if it was held by the seller of the option. If the ERC would be a capital asset in the hands of the seller of the option, the option will produce long-term capital gain only if the option itself has been held for more than one year. Treas. Reg. §1.1234-1(a). Any gain or loss realized on the sale of an ERC option by a dealer of ERCs is considered to be ordinary gain or loss. A dealer in ERC options is also considered a dealer in ERCs for tax purposes. Treas. Reg. §1.1234-1(d).

Under Treas. Reg. §1.1234-1(b), a failure to exercise an ERC call or put option is treated as a sale or exchange of the option. Thus, the character of the loss resulting from the forfeiture of the premium depends in part upon the character of the underlying ERC in the hands of the option holder. If an ERC would constitute a capital asset, the loss on the lapse of an ERC option would be long-term or short-term capital loss depending on whether the option has been held for more than one year.

When an ERC call option is exercised, the firm acquiring the ERC adds the premium paid for the option to the purchase price of the ERC and the total cost becomes the tax basis of the ERC. The holding period of the ERC acquired by the exercise of a call option commences when the ERC is acquired, not when the option was originally purchased. Helvering v. San Joaquin Fruit and Investment Co., 297 U.S. 496 (1936). Thus, an ERC purchased in an option transaction must be held for more than one year to secure long-term capital gain treatment on a sale of the ERC.

Upon the sale of an ERC through the exercise of an ERC put option, the premium previously paid for the option reduces the gain realized upon the subsequent sale of the ERC. Rev. Rul. 58-234, 1958-2 C.B. 279. If the ERC put option is allowed to expire, the forfeiture of the premium is a deductible loss, and will be a capital loss if the underlying ERC would be a capital asset in the hands of the holder of the put option.

17. What are the Tax Consequences When an ERC is Sold Short?

> **Gain or loss realized on a short sale of an ERC is recognized in the year the transaction is completed by delivery of the ERC. The purchaser's holding period of the ERC is determined by the date of delivery, not the date of the sale. As a result, short sales can be used to convert what would otherwise be short-term capital gain into long-term capital gain, if delivery occurs more than one year after the seller of the ERC originally acquired the ERC.**

For income tax purposes a short sale of an ERC is not deemed to be consummated until the transaction is closed by the delivery of the ERC. Whether the gain or loss realized on the short sale is capital gain or loss depends upon whether the ERC constitutes a capital asset in the hands of the seller. Treas. Reg. §1.1233-1(a)(1). Thus, a dealer in ERCs would recognize ordinary gain or loss on the closing of a short sale of an ERC. Treas. Reg. §1.1233-1(a)(2).

A short sale of an ERC is a significant planning tool to secure long-term capital gain treatment for what would otherwise be short-term gain. A firm could avoid short-term capital gain treatment by selling the ERC short and delivering it only after it has been held long enough to secure long-term capital gain treatment. By selling short, the firm is "off-the-risk" with respect to the ERC, but nevertheless is able to secure long-term capital gain treatment.*

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*To limit the use of short sales to circumvent the one year holding period requirement, Congress enacted Section 1233. However, Section 1233 only applies to short sales of stocks, securities, and commodity futures, and not to short sales of ERCs. Section 1233(e). Thus, structuring an ERC transaction as a short sale will continue to have potential tax benefits.

IV. Conclusion

This paper has examined the critical tax considerations that arise in the context of ERC transactions. Most of the tax consequences are resolved by application of specific Internal Revenue Code provisions, Treasury regulations, IRS rulings, or court cases, dealing with pollution control facilities or intangible property rights analagous to ERCs. However, several major issues (e.g., industrial development bond financing and amortization of ERCs) remain unresolved and their resolution will have to await examination by the IRS or the courts.

The analysis has important implications for areas designing their controlled trading rules. While it has been suggested that amortization deductions for the cost of an ERC may be available if state regulations provide for an expiration date for an unused ERC, the study concludes that the IRS will probably still deny amortization deductions under these circumstances. The study also concludes that because amortization deductions are likely to be denied for the cost of an ERC, ERC leasing can be an important planning tool for the ERC user in order to secure tax deductions through rental payments. Accordingly, designers of controlled trading rules may wish to consider the inclusion of the ERC leasing option.

For firms contemplating the use of controlled trading, the analysis highlights the tax-planning opportunities (e.g., equipment leasing under new liberalized rules enacted in the Economic Recovery Tax Act of 1981, installment sales of ERCs to defer recognition of taxable gain, short-sales of ERCs to achieve long-term capital gain). For those unresolved issues that the study has identified, firms wishing to engage in an ERC transaction should consider securing a private ruling from the IRS as to the tax consequences. Those firms that secure favorable private rulings will be able to rely in the conclusions of the IRS as they participate in controlled trading.

APPENDIX A

Glossary of Tax Terms

Basis or Adjusted Basis

Basis and adjusted basis are tax accounting terms used to describe the amount of a taxpayer's investment in property that has not previously been recovered. The basis of property determines the amount of depreciation or accelerated cost recovery deductions for the property, as well as the amount of gain or loss upon its disposition. The original basis of property is its purchase price or cost, whether paid by cash, notes or other debt instruments. Basis also includes the buyer's commissions and other expenses connected with the purchase. While property is held, basis may be adjusted. It is increased by the amount of capital expenditures related to the property and reduced by depreciation or accelerated cost recovery deductions.

In ERC transactions, a tax basis is established for the pollution control equipment used to achieve an emission reduction, as well as for an ERC that is created or purchased. The basis of each will determine the amount of depreciation, amortization, or accelerated cost recovery deductions for that particular asset. An important basis question is whether any costs incurred in achieving a surplus emission reduction should be allocated to the basis of the ERC, or whether all of these costs should be included in the basis of the pollution control facility.

Capital Assets and Long-Term Capital Gain

Gain realized on the sale of a capital asset held for more than one year is referred to as long-term capital gain and accorded favorable tax treatment. Gain on the sale of a capital asset held for a shorter period is referred to as short-term capital gain, and to the extent that it is not offset by capital losses, it is taxable as ordinary income. Gain on the sale of depreciable business property held for more than one year also can qualify for long-term capital gain treatment, but in many cases such favorable tax treatment is not available to the extent that the gain exceeds prior depreciation or cost recovery deductions.

Capital assets generally include all assets except (1) stock in trade or inventory, (2) property held primarily for sale to customers in the ordinary course of business (e.g., not held for possible sale in an isolated transaction), and (3) depreciable business property. The primary factor in determining whether an ERC is a capital asset is the owner's motivation in holding it (e.g., for investment or for sale to customers). A banked ERC may constitute a capital asset if it is not considered depreciable business property. Dealers in ERCs holding these assets for sale to customers will not be treated as holding capital assets. Consequently, a dealer's profit realized on the sale of an ERC will be ordinary income, rather than capital gain. However, the profit of the firm selling an ERC may be capital gain, even if sold through a broker or other dealer. If an ERC qualifies as a capital asset or as depreciable business property, a firm may decide to bank an ERC for the one year holding period before selling it to obtain favorable long-term capital gain treatment.

Capital Expenditure

A capital outlay made to acquire property that has a useful life of over one year is not deductible as a business expense. Instead, the expenditure is capitalized and becomes part of the basis of the property acquired. Tax recognition of the expenditure is accorded through depreciation, amortization, or accelerated cost recovery deductions during the useful life of the property, if such useful life is limited and ascertainable. Firms will want to know which expenditures incurred in an ERC transaction must be capitalized. Expenditures for the acquisition of pollution control equipment and ERCs will be treated as capital expenditures, while expenses incurred in operating and maintaining pollution control equipment will be deductible on a current basis as ordinary business expenses.

Contributions to Capital

Contributions to the capital of a corporation are not taxed to the corporation. A government grant or subsidy can qualify as a tax-free capital contribution if (1) the grant or subsidy becomes part of the working capital of the corporation, (2) it is not compensatory, (3) it is bargained for, (4) it will benefit the corporation, and (5) it may contribute to the production of additional income of the corporation.

In the context of ERC transactions, capital contributions may include government subsidies made for the purpose of reducing emissions to create ERCs or as an inducement to locate or remain in an area. Firms will want to know under what circumstances government subsidies and grants will be tax-free and what consequence tax-free treatment will have on other tax benefits available (e.g., on depreciation or accelerated cost recovery deductions).

Depreciation, Amortization, and Accelerated Cost Recovery Deductions

Depreciation or accelerated cost recovery deductions are available for tangible business property that has a limited useful life of more than one year. For assets placed in service after December 31, 1980, accelerated cost recovery deductions are available for tangible business property, such as pollution control equipment. Most control equipment is eligible for cost recovery deductions over a five-year period.

Amortization is the term commonly used to refer to the depreciation of intangible assets or to a special 60-month cost recovery system used for certain pollution control equipment in lieu of accelerated cost recovery or depreciation deductions. A firm may elect this special amortization if the control equipment is certified as a "pollution control facility," but only if the control facility is used in conjunction with a plant that was in operation before 1976. If the facility is financed by tax-exempt industrial development bonds, however, the election of 60-month rapid amortization results in a 50 percent reduction in the investment tax credit otherwise available for the pollution control equipment. This limitation, and the fact that pollution control equipment also is eligible for accelerated five-year cost recovery deductions, makes the 60-month amortization option less attractive in many cases. The tax benefits of each alternative must be evaluated, however, to determine which method provides the most favorable economic and tax results overall.

For intangible property, such as an ERC, amortization is available only where the asset has a limited useful life and then only on a straight line basis. A useful life for an ERC may be difficult to establish, however. The definition of ERCs in state controlled trading rules (e.g., whether ERCs must be used within a specified period of time) may determine whether they qualify for amortization while banked. Once withdrawn from the bank and incorporated into a permit, the eligibility of an ERC for amortization depends upon whether a useful life can be established through the anticipated use of the facility to which it is dedicated.

Industrial Development Bonds

Industrial development bonds are obligations issued by a state or local government, or a duly constituted authority acting on its behalf, for the benefit of a private borrower. Interest received by bondholders on qualified industrial development bonds is not taxed. The greatest potential for industrial development bond financing is with large issues (i.e., over $10 million). However, under current regulations large issues can only be used for the purpose of constructing an "air pollution control facility" (emphasis added), and therefore, cannot be used for process changes and pollution prevention equipment. Major tax questions that arise with large issues concern the type of equipment that qualifies as an "air pollution control facility" and whether profit from the sale of an ERC generated by equipment funded with industrial development bonds will preclude a tax exemption for this type of financing.

Investment and Energy Tax Credits

Pursuant to Section 211 of the Economic Recovery Tax Act of 1981 amending Section 46(c) of the Internal Revenue Code, taxpayers can claim a ten percent investment tax credit for most qualified investments in new tangible business property having a midpoint useful life of over four years determined under industry-wide standards adopted by the Treasury Department (the Asset Depreciation Range system). The total credit can equal the first $25,000 of tax liability, plus 80 percent of the excess over $25,000 for 1981 and 90 percent of the excess over $25,000 for 1982. The credit only applies to depreciable, tangible personal property used in the taxpayer's trade or business. Therefore, the credit is available for tangible pollution control equipment purchased to create an ERC, but is not available for an intangible ERC.

In addition to the investment tax credit, a ten percent business energy tax credit is available for a limited number of years for certain qualified investments in new, depreciable, tangible business property that qualifies as alternative energy property. The credit is in addition to the investment tax credit and can offset a firm's entire tax liability. Pollution control equipment can qualify as alternative energy property if it is required to be installed by federal, state, or local regulations in connection with certain qualifying boilers, burners, equipment used in the production of synthetic fuels, or equipment which uses an alternative substance mixed with oil or natural gas. A significant limitation on the energy tax credit is that the pollution control equipment must be used in connection with new property (e.g. a new point source). Since control requirements for new equipment usually preclude the creation of excess emission reductions, ERCs ordinarily will not be created where the energy tax credit is available. Consequently, an extended discussion of the energy tax credit is beyond the scope of this paper.

Loss Deduction

A loss deduction may be available where a firm decides to abandon outmoded pollution control equipment, or to sell it for its scrap value. Firms will want to determine how profits from the sale of ERCs created by production cutbacks and shutdowns will affect their claim for a loss deduction. Any loss deduction generally will be measured by the adjusted basis of the plant or machinery, less any scrap value. To obtain a loss deduction for abandoned or retired plant and equipment, there is no requirement that the firm entirely terminate business operations or refrain from replacing the asset. However, to obtain such a deduction the firm probably will have to show an intention not to use the asset again (or sell it). In the case of an asset of general utility, such as a building, this may be difficult if the asset is not sold, destroyed or otherwise disposed of permanently.

A loss deduction also may be available if SIP revisions result in the reduction of the emission rights afforded by an ERC and no compensation is received for such reduction.

Rental Deduction

In a leasing transaction, the lessee obtains a deduction for rental payments and the owner of the property includes the rental payments in gross income. A leasing transaction can occur for both pollution control equipment and for an ERC. A rental deduction is not available if the lessee's payments result in the acquisition of an equity or ownership interest in the property. The primary tax consideration for firms engaging in a leasing transaction is to make sure that the leasing arrangement is not treated as a sale with the lessee treated as a buyer and not entitled to the rental deduction.

APPENDIX B

IRS Offset Rulings

In two related rulings, Rev. Rul. 79-264 and Letter Ruling 7950049,* the IRS considered the tax consequences in a transaction where a new source seeking an offset finances an emission reduction on the premises of an unrelated party. The facts upon which the IRS rulings are based probably do not represent a typical offset transaction and did not involve ERC banking. However, the rulings are important because they are the first legal precedent dealing with the tax aspects of controlled trades.

The underlying facts in the rulings appear to be based on the well-known SOHIO offset transaction. In 1976, SOHIO initiated permit negotiations for the construction of a marine terminal, petroleum-storage facility, and oil pipeline terminals in Long Beach, California. SOHIO proposed to obtain required offsets from a number of sources, including a proposed installation by Southern California Edison of a scrubber and combustion temperature controls on one of its electrical generating units. The proposed offset transaction called for SOHIO's payment of approximately $78 million to the utility for the construction, installation, and operation of the control equipment, which SOHIO would own.

In 1979, SOHIO abandoned the terminal project, citing delays in state permit procedures and the likelihood of protracted legal challenges to the arrangement. (By providing a reservoir of approved ERCs readily available to new or expanding sources, an ERC banking program seeks to reduce regulatory delays and to increase legal certainty, the two main problems encountered by SOHIO.)

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*Revenue Rulings represent an application of the law by the IRS to a hypothetical set of facts that may have been derived or abstracted from an actual case. Revenue Rulings are published by the IRS in its Cumulative Bulletin and may be relied upon by all taxpayers. A letter ruling issued by the IRS involves the facts of a particular situation and can be relied upon only by the taxpayer to which it is issued. Copies of private letter rulings with identifying facts deleted are compiled by various private organizations, such as Commerce Clearing House, Inc., and may be obtained from the IRS upon request.

The SOHIO offset transaction is unusual in that SOHIO would have reimbursed Southern California Edison for its costs in reducing emissions and would have retained ownership of the scrubber installed at the utility's plant. Thus, the actual cost of reducing emissions (i.e., acquisition and installation of the scrubber) would have been SOHIO's cost in securing the offset. With ERC banking this will not be the typical case. Since market factors, and not just emission reduction costs, will be the primary influence on the purchase price of an ERC, a firm creating a surplus emission reduction can sell its ERC for more than its emission reduction costs. Another unique aspect of the proposed SOHIO transaction was that the installation of the scrubber would probably not have provided an economic benefit to the utility or reduced its cost of achieving compliance with ambient air pollution control standards. In a typical ERC transaction, where a banking program has been established, the existing firm will initiate its own emission reduction, retain ownership of the control equipment and possibly satisfy control requirements more cheaply, in addition to creating an ERC. Most firms seeking offsets would prefer to purchase the ERC without also obtaining control over the equipment producing the ERC.

The aborted SOHIO offset transaction raises the following tax questions, which were addressed by the IRS in its rulings:

- o Which firm is treated as the owner of the pollution control equipment for depreciation*, and investment tax credit purposes?
- o Is the purchasing source (SOHIO) entitled to a deduction for any payments made after the initial transaction is concluded to subsidize the expenses incurred in operating the control equipment?
- o How does the company with the existing source (Southern California Edison) treat its expenses and its receipt of related reimbursement payments for tax purposes?

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*The rulings deal with the tax law prior to the Economic Recovery Tax Act of 1981. Consequently, the availability of depreciation, rather than five-year accelerated cost recovery deductions, was at issue.

- Will the creating source realize taxable income on any indirect benefits derived from the installation of the control equipment?

Ownership of Pollution Control Facility

The SOHIO offset transaction could have been structured so that either company would have been considered the owner of the control equipment acquired to achieve the emission reduction. Establishing ownership is important because it determines which company is entitled to the investment tax credit and to the rapid amortization, depreciation or accelerated cost recovery deductions.

The IRS generally applies a "benefits and burdens" test to determine which company is considered the owner of property for tax purposes. See, e.g., Rev. Rul. 72-408, 1972-2 C.B. 86; Helvering v. Lazarus & Co., 308 U.S. 252 (1939) (depreciation deductions are allowable to the taxpayer who bears the burden of exhaustion of the capital investment). The company that bears the economic benefits or burdens of any increase or diminution in the value of the property will be considered by the IRS to be its owner.

In Rev. Rul. 79-264 and Letter Ruling 7950049, S (SOHIO) sought offsets through emission reductions on the premises of E (Southern California Edison). In ruling that S would be considered the owner of the control equipment on E's premises, the IRS listed the following factors as controlling:

- S possessed legal title to the scrubber;
- S had a contractual duty to pay for all of the capital investment in the scrubber;
- S had the responsibility to pay maintenance and operating costs;
- S had the duty to pay taxes levied on the scrubber;
- S bore the risk of loss if the scrubber was destroyed or condemned;
- S bore the risk of diminution in value of the scrubber due to obsolescence or exhaustion;
- S enjoyed the benefits of the scrubber throughout its entire useful life; and

- o the scrubber satisfied pollution abatement conditions imposed on S and was an ancillary activity relating to the operation of S's new source.

Rev. Rul. 79-264 and Letter Ruling 7950049 provide guidelines for companies to follow to secure IRS recognition that the firm seeking an offset is also the owner of the control equipment. As stated earlier, however, ownership of the pollution control facility by the firm seeking the offset is unusual. Most firms seeking to purchase ERCs will not want title and responsibility of operating and maintaining the control equipment, however. With an ERC banking system, firms able to create surplus reductions can evaluate their own tax benefits independently of the ERC purchaser's benefits. If the benefits of the investment tax credit and five-year accelerated cost recovery deductions are favorable, firms will create ERCs, retain ownership of the control equipment, and not pass the tax savings on to the ERC purchaser.

Any alternative transaction outside of the banking process, which contemplates a continuing relationship between the parties, must be carefully structured to ensure that the IRS will treat the firm that seeks the depreciation, accelerated cost recovery deductions and the investment tax credit as the owner of the property in question.

Deduction for the Payment of Operating and Maintenance Expenses

In its rulings, the IRS recognized the business necessity of obtaining offsets to operate in a nonattainment area. It ruled favorably that a purchasing source is entitled to a deduction for the expense of operating and maintaining control equipment which is used to create an offset on the premises of an unrelated firm. Technically, these rulings involved ownership of the abatement equipment by the purchasing source, rather than by the creating source generating the emission reduction. Nevertheless, if the transaction is structured so that ownership is retained by the creating source, the purchasing source that reimburses the creating source for its operating and maintenance expenses should still be entitled to the deduction. Once again, however, in the typical transaction involving the sale of ERCs, the creating source will bear all the costs of creating and maintaining the ERC.

Subsidy Payments Taxable to the Source Reducing Emissions

In its rulings, the IRS was not consistent in its treatment of reimbursement payments received by the creating source. In Rev. Rul. 79-264, the IRS ruled that, to the extent the creating source acts as an independent contractor in the construction, operation, and maintenance of the abatement equipment:

- it must include in gross income any reimbursement payments received from the purchasing source; and
- it may deduct all ordinary and necessary expenses incurred in constructing, operating and maintaining the equipment.

The IRS reached a different result in Letter Ruling 7950049. It ruled that the creating source:

- does not realize income to the extent reimbursements received from the purchasing source do not exceed expenditures;
- is not entitled to deductions for expenditures to the extent that it has a right to reimbursement; and
- is entitled to a deduction for expenditures only to the extent they exceed reimbursements.

The different approaches of Rev. Rul. 79-264 and Letter Ruling 7950049 lead to the same tax result where reimbursement and expense payments occur in the same taxable year. However, under these rulings tax consequences can differ where expenses are incurred in one year and reimbursement payments are received or accrued (depending on whether the firm is a cash or accrual-basis taxpayer) the following year. In such a case the creating source can receive a tax benefit or tax detriment as a result of the mismatching of the deduction and income items, e.g., a deduction in the earlier year and recognition of income in a later year. Under the matching approach of Letter Ruling 7950049, no such tax benefit or detriment is available.

In arranging transactions, the "published" conclusion of Rev. Rul. 79-264 must be treated as the IRS current position. Its conclusion also is supported in numerous other rulings. See Rev. Rul. 57-104, 1957-1 C.B. 166; Rev. Rul. 76-6, 1976-1. However, there is contrary authority supporting the approach

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of Letter Ruling 7950049 that sheds some doubt as to the proper tax treatment. See, 4A Mertens, Law of Federal Income Taxation §25.10 (1979); Rev. Rul. 80-348, 1980-51 I.R.B. 6.

An important aspect of Rev. Rul. 79-264 is that the IRS apparently ruled that the creating source is entitled to a current deduction for its costs incurred in constructing the control equipment, as well as for its operating and maintenance expenses. In the usual case construction costs must be capitalized because the costs are used to acquire an asset that has an extended useful life. The IRS recognized, however, that where the creating source does not acquire ownership of the constructed facility, it does not derive a long-term benefit from its construction costs. Accordingly, the creating source in Rev. Rul. 79-264 received a current deduction for these costs. The purchasing source, on the other hand, was not permitted to deduct its reimbursement payments to the extent they were for the construction of the equipment. Since the purchasing source obtained ownership of the equipment through its reimbursement payments, it was required to capitalize them and add them to the basis of the equipment. The purchasing source was entitled to a current deduction only for the reimbursement payments attributable to the maintenance and operating expenses.

Other Taxable Income of the Source Creating the ERC

In Rev. Rul. 79-264 the creating source did not receive any economic benefits from the installation and use of control equipment on its premises. Consequently, the IRS ruled that the creating source was not taxable except on its receipt of reimbursement payments. However, the IRS implied that if one or more of the following factors were present, it might assert an additional tax liability in a SOHIO-type transaction:

(1) the creating source had a duty to reduce air pollution;

(2) replacement of the control equipment would not be necessary if the creating source's facilities became subject to new air pollution regulations (i.e. the equipment installed to create the ERC could also be used in whole or part to meet new regulations applicable to the creating source);

(3) the equipment increased the production or capacity of the creating source;

(4) the equipment effected an increase in revenue or cost savings to the creating source;

(5) the equipment increased the useful life of the creating source's facilities; or

(6) title and beneficial ownership of the equipment remained with the creating source.

None of these factors should result in additional taxation to the creating source, despite the contrary implication in Rev. Rul. 79-264. It is unclear what theory the IRS would use to tax the creating source on an economic benefit in a SOHIO-type transaction. One possible approach could be for the IRS to treat the rent-free use of the property as a form of non-cash income to the creating source. See, e.g., Chandler v. Commissioner, 119 F.2d 623 (3d Cir. 1941); Fruehauff v. Commissioner, 30 B.T.A. 449 (1934) (employees or shareholders are taxable on the value of the rent-free personal use of company-owned property). It is questionable, however, whether this theory can be effectively applied to the use of property in a business. See Dean v. Commissioner, 35 T.C. 1083 (1961), nonacq., 1973-2 C.B. 4, (the value of an interest-free loan does not increase the taxpayer's taxable income because had the taxpayer received cash equal to interest on the loan and used the cash to pay the interest liability, it would have been entitled to an offsetting interest deduction).

Despite numerous court decisions following the Dean rationale, the IRS continues to take the position that interest-free loans increase the taxable income of the borrower. See, e.g., Suttle v. Commissioner, 80-2 U.S.T.C. ¶9534 (4th Cir. 1980). This refusal to accept the Dean decision may be the basis of the implication in Rev. Rul. 79-264 that the IRS may assert a tax on the rent-free use of control equipment in a SOHIO-type offset transaction.

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